Middle School/High School
Percussion Resource Guide

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# Percussion Resource Guide

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1. Timpani Technique and History Packet
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6. “*Concert Snare Drum, Toms, and Bass Drum-Tuning and Adjustment*” by Tom Freer
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9. PAS International Drum Rudiments

### Section Four – Keyboard Mallets
1. Mallet Technique and History Packet
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3. “Properly Tuning a Concert Bass Drum” by Chris Deviney
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2. “About the Triangle” by Neil Grover and Garwood Whaley
3. “Triangle” by Jillian Pritchard
4. Tambourine General Playing Tips
6. “About the Tambourine” by Neil Grover and Garwood Whaley
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8. “Maracas” by Kristen Shiner McGuire
9. “Castanets” by Jillian Pritchard

Section Eight – Drumset
1. “Drumset Fundamentals” by Dave Black and Mark Dorr
2. “Drumset Fundamentals” by Bob Breithaupt
4. “Fundamental Grooves” by Pat Petrillo
5. “Basic Beats” by Steve Houghton
Section Nine – Marching Drums
1. “The Care of Marching Percussion Instruments” by Ward Durrett
2. “Tuning you Multi-Tenors” by Neal Flum
3. “Tuning Marching Bass Drums...Articulation with Tone” by Jim Casella

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**Director Resources**

- [www.pas.org](http://www.pas.org) - Percussive Arts Society Website
- *Teaching Percussion* by Gary Cook
- *The Encyclopedia of Percussion* edited by John Beck (Garland Publication)
- *Percussive Notes Magazine* – available through the Percussive Arts Society
- *Modern Drummer Magazine* – PO Box 480, Mt. Morris, IL 61054-8079
- *Percussion Instruments and Their History* by James Blades (Faber and Faber)
- *Mallet Repair* by Arthur Press
- [www.pearlrum.com](http://www.pearlrum.com) – Contains educator resources
- [www.vicfirth.com](http://www.vicfirth.com) – Contains educator resources
- [www.xs4all.nl/~marcz/percussioninformation/index.html](http://www.xs4all.nl/~marcz/percussioninformation/index.html) - Percussion Information
- [www.percussionmusiconline.com](http://www.percussionmusiconline.com) – Percussion music Online
- [www.metronomeonline.com](http://www.metronomeonline.com) - Metronome

**CCSD High School Honor Band/All-State Etude Books**

1. *Portraits in Rhythm* by Anthony Cirone
2. *Audition Etude for Snare Drum, Timpani, Keyboard Instruments, and Multiple Percussion* by Garwood Whaley
3. *Modern School for Xylophone, Marimba, Vibraphone* by Morris Goldenberg

**Recommended Etude Books**

- **Mallets**
  - *Audition Etudes* by Garwood Whaley (Meredith Music Publications)
  - *Four Mallet Exercises* by Garwood Whaley (Meredith Music Publications)
  - *Fundamental Method for Mallets* by Mitchell Peters (Alfred Publishing)
  - *An Instruction Course for Xylophone* by George Hamilton Green (Meredith Music Publications)
  - *Method of Movement for Marimba* by Leigh Howard Stevens (Marimba Productions/Mallettech)
  - *Modern School for Xylophone, Marimba, Vibraphone* by Morris Goldenberg (Hal Leonard)
  - *Musical Studies for the Intermediate Mallet Player* by Garwood Whaley (Meredith Music Publications)
  - *Primary Handbook for Mallets* by Garwood Whaley (Meredith Music Publications)
  - *Recital Piece for Mallets* by Garwood Whaley (Joel Rothman)
  - *Vibraphone Techniques* by David Freidman (Berklee Press)
• **Timpani**
  - *Audition Etudes* by Garwood Whaley (Meredith Music Publications)
  - *Exercises, Etudes, and Solos For the Timpani* by Raynor Carroll
  - *Intermediate Timpani Studies* by Mitchell Peters
  - *Musical Studies for the Intermediate Timpanist* by Garwood Whaley (Joel Rothman Publications)
  - *The Solo Timpanist* by Vic Firth (Carl Fischer)

• **Snare Drum**
  - *Alfred’s Drum Method* by Sandy Feldstein & Dave Black
  - *The All-American Drummer* by Charley Wilcoxon
  - *Audition Etudes* by Garwood Whaley (Meredith Music Publications)
  - *Beginning Snare Drum Methods* by Al Payson
  - *Fifty Contemporary Snare Drum Etudes* by Alexander Lepak (Windsor Music Publishing Comp.)
  - *Fundamental Studies for Snare Drum* by Garwood Whaley (Joel Rothman Publications)
  - *Musical Studies for the Intermediate Snare Drummer* by Garwood Whaley (Joel Rothman Publications)
  - *The Orchestral Snare Drummer* by Anthony Cirone
  - *Portraits in Rhythm* by Anthony Cirone (Warner Bros.)
  - *Progressive Steps To Syncopation For the Modern Drummer* by Ted Reed
  - *The Snare Drummer in the Concert Hall* by Al Payson (Meredith Music Publications)
  - *Stick Control for the Snare Drummer* by George Stone (Ludwig Music Publishing)

• **Accessories**
  - *Orchestral Techniques of the Standard Percussion Instruments* by Anthony Cirone (Warner Bros.)
  - *Play Congas Now: The Basics and Beyond* by Richie Gajate-Garcia
  - *Techniques and Exercises for Playing Triangle, Tambourine, and Castanets* by Paul Price (MFP)

• **Drum-set**
  - *Advanced Techniques for the Modern Drummer* by Jim Chapin (Jim Chapin)
  - *Alfred’s Beginning Drum Set Methods* by Sandy Feldstein and Dave Black (Alfred Publishing Company)
  - *The Art of Bop Drumming* by John Riley (Warner Bros.)
  - *Progressive Steps To Syncopation For the Modern Drummer* by Ted Reed

• **Multiple Percussion**
  - *Portraits for Multiple Percussion* by Anthony Cirone
  - *Studies in Solo Percussion* by Morris Goldenberg (Hal Leonard)
Percussion Student Required Supplies (Recommended)

- All percussionists should have their own required equipment that should be purchased by the end of the first week of school. Contact your nearest music dealer in the summer to give them your required list so they can stock your items. Below is a sample list of things you may want to consider requiring your percussionists to purchase:

  - **6th Grade Percussionists**
    - 1 - Vic Firth standard stick bag (or equivalent)
    - 1 – Vic Firth 6” double-sided practice pad (or equivalent)
    - 1 – Pair Vic Firth concert snare drum sticks (SD1 – generals)
    - 1 – Pair bell mallets
    - 1 – Electric tuner and metronome

  - **7th & 8th Grade Percussionists**
    - *Everything on the 6th grade list and:*
    - 1 - Pair Vic Firth timpani mallets (generals)
    - 1 – Pair Balter Pro-Vibe mallets (T-1 Generals)

  - **Freshmen Percussionists**
    - 1 - Vic Firth standard stick bag (or equivalent)
    - 1 – Vic Firth 6” double-sided practice pad (or equivalent)
    - 1 – Pair Vic Firth concert snare drum sticks (SD1 – generals)
    - 1 - Pair Vic Firth timpani mallets (generals)
    - 1 – Pair Bob Becker (Mallettech) xylophone mallets (or equivalent)
    - 1 – Pair Balter Pro-Vibe mallets (T-1 Generals)
    - 1 – Electric tuner and metronome
    - 2 - Black hand towels (for trap stands)

  - **Sophomore Percussionists**
    - *Everything on the Freshmen Percussionist list and:*
    - 1 – Pair Balter Pro-Vibe mallets (Hard)
    - 1 – Pair Balter 91 bell mallets (polys)

  - **Junior Percussionists**
    - *Everything on the Freshmen & Sophomore Percussion list and:*
    - 1 – Pair Vic Firth Ultra Staccato Timpani mallets
    - 1 – Pair of brushes

  - **Senior Percussionists**
    - *Everything on the Freshmen, Sophomore, & Junior Percussionist list*

  - **Jazz Band Drummer**
    - 1 – Pair of drum set sticks (any brand is fine)
    - 1 – Pair of brushes
    - 2 – Pairs of Balter Pro-Vibe mallets (Hard)
Recommended School Percussion Instrument Inventory

Below is a list of recommended percussion instruments a high school should have available for student use. Refer to the Clark County School District Standards List to see what items should be provided.

- **(2) – Concert Bass Drums**
  - Yamaha or Pearl 36” with stand
- **(1) – Set of Timpani**
  - Yamaha or Adams (fiberglass or copper) 23”, 26”, 29” 32”
- **(2) – Marimbas**
  - Yamaha or Adams 4 1/3 octaves
- **(1-2) – Xylophones**
  - Yamaha or Adams 3 1/2 octaves
- **(2) – Vibraphones**
  - Yamaha or Adams
- **(1-2) – Bells**
  - Musser 2 1/2 octaves with case and stand
- **(1) – Chimes**
  - Musser 1 1/2 octave
- **(2) – Concert Snare Drums**
  - Yamaha or Pearl 14” wood shell with double-braced stands
- **(1) – 5 piece drum-set**
  - Yamaha Stage custom or Pearl equivalent
  - 20” Ride Cymbal, 16”-18” Crash cymbal, 14” hi-hats plus stands, bass drum pedal, and throne (stool)
- **(4-8) – Cymbal Stands**
  - Yamaha or Pearl double-braced
- **(1-2) – Orchestral suspended cymbal**
  - 18”-20” Sabian Hand Hammered or Zildjian equivalent
- **(1-2) – Pairs of Orchestral Crash Cymbals**
  - 18”-20” Sabian Hand Hammered French or Viennese or Zildjian equivalent
- **(1-4) – Pairs of Marching Crash Cymbals**
  - 18” Sabian or Zildjian
- **(1) – Set of Congos**
  - Set of two with stand, Latin Percussion (or equivalent)
- **(1) – Set of Bongos**
  - Set of two drums with stand, Latin percussion (or equivalent)
- **(1) – Gong (Tam-Tam)**
  - 32”-40” Paiste (or equivalent) with stand
- **(1) – Tambourine**
  - Grover or Black Swamp (or equivalent), Silver Jingles with case
- **(1) - Triangle**
  - 6” Alan Abel (or equivalent) with triangle clip
- **(4-8) - Triangle Beaters**
  - Grover or Black Swamp (or equivalent) with case (different sizes)
• (2-8) - Concert Toms
  o Yamaha or pearl (8”-18”) with Stands
• (2) - Cowbells
  o Latin Percussion (or equivalent)
• (1-2) - Woodblocks
  o Grover, Black swamp, Vaughncraft (or equivalent)
• (1) – Temple Blocks (granite blocks)
  o Latin Percussion (or equivalent) plus stand
• (1) – Wind Chimes
  o Treeworks (or equivalent) double row
• (1) – Guiro
  o Latin Percussion Super guiro (or equivalent)
• (1) - Rachet
• (1) – Vibraslap
• (1) – Finger Cymbals
  o Sabian or Zildjian
• (1) - Claves
  o Toca (or equivalent)
• (1) - Maracas
  o Latin Percussion 389 3” fiber (or equivalent)
• (1) – Jingle Bells
• (1) – Cabasa
  o Latin Percussion (or equivalent)
• (1) – Slap Stick
  o Chronos (or equivalent)
• (1) – Castanets
  o Hand or machine, Black Swamp (or equivalent)
• (1) – Bell Tree
  o Latin Percussion (or equivalent)
• (1) – Shakers
  o Latin Percussion 440 shaker (or equivalent)
• (2) – Concert Bass Drum Mallets
  o Vic Firth TGO3 Molto (or equivalent)
• (2) – Gong (Tam-Tam) Mallets
  o Vic Firth GB4 (or equivalent)
• (2) – Chime mallets
  o Vic Firth (or equivalent)
• (3-4) – X-Stands for trap tables
• Marching Percussion
  o Yamaha or Pearl with carriers
  o 14” snare drums, (5) bass drums 18”-30”, Tenors 8”-14”
Palo Verde High School
Percussion Equipment Usage Form

A variety of instruments are available for percussionists to use during the school year, such as marimbas, timpani, bass drums, cymbals, maracas, etc. Percussionists change part assignments regularly during the class period and share this equipment daily. These instruments are available to percussionists free of charge. Students gain experiences playing a number of different percussion instruments and must also take pride in the condition of each and every percussion instrument, which is the property of the Palo Verde High School Band Program.

Proper care must be taken when handling percussion instruments. Only approved mallets and sticks may be used on the equipment. Students must also use only approved approaches to playing the percussion instruments. If a student damages, breaks, or loses percussion equipment, he or she will be held financially responsible for its replacement or repair.

The misuse or abuse of the percussion equipment will result in the immediate removal of any privileges regarding the use of the equipment and could also result in disciplinary actions and possible removal from the program.

The goal of the Palo Verde Band Program is to make a concerted effort to improve the condition of its current inventory of percussion instruments. If each student takes the time to care for these expensive instruments, the equipment will last for many years. These instruments are expected to remain in excellent playing condition, well beyond any current percussionist’s tenure in the band program.

Please sign and return the top (white) page indicating that you are aware of the conditions for using Palo Verde High School’s percussion equipment. Please keep the bottom (yellow) page for your records.

I HAVE READ THE PERCUSSION EQUIPMENT USAGE POLICY AND I AGREE TO TAKE PROPER CARE OF THE PERCUSSION INSTRUMENTS AVAILABLE TO ME. I UNDERSTAND THAT IF I DAMAGE OR LOSE PERCUSSION EQUIPMENT, I WILL BE ASSESSED A FINE THAT WILL COVER THE COST OF THE REPAIR OF REPLACEMENT OF THE INSTRUMENT.

PARENT NAME (PRINTED): __________________________________________

PARENT SIGNATURE: __________________________________________ DATE: ________________

STUDENT NAME (PRINTED): __________________________________________

STUDENT SIGNATURE: __________________________________________ DATE: ________________

BAND DIRECTOR SIGNATURE: __________________________________________ DATE: ________________
Recommended Concert Percussion Set-up

Notes:

1. Keep timpani and bass drum at least 5 feet apart. The bass drum will absorb the timpani’s overtones.
2. When setting up the mallets, place the marimba and vibraphone on the extreme outside edge. These instruments need to be placed here to be heard.
3. Consider putting the crash cymbals between the bass drum and snare drum if the cymbals and bass drum have many unison impacts.
PERCUSSION SECTION ORGANIZATION

Organize the percussion section into five areas. Each area may consist of several “performing stations.”

I. Keyboard Percussion
II. Miscellaneous Percussion
III. Snare Drum
IV. Bass Drum and Cymbals
V. Timpani

Setup
This setup will work well for performance of standard percussion ensembles and, when set within a band or orchestra, will allow for good “ensemble” and little movement between pieces. Percussion ensembles will be performable during a band or orchestra concert with the same instrument placement.

Divide the music into corresponding folders, and note the folder number of each part so that the correct part will always be in the appropriate folder at the proper “station.”

Carpet squares or towels should be placed on leveled music stands at each station for use as stick trays and small instrument holders. Never use the floor or a bare table top for instrument placement. Elimination of all extraneous noise is a must for the percussion section.

Always strive for the best, most characteristic sound on each percussion instrument. Have a pencil on hand to mark instrument changes, types of mallets and instructions regarding interpretation.

No other section in the band or orchestra faces the organizational challenges of the percussion section. The difference between a tolerable and an outstanding section is often a matter of five or six minor problems that, when corrected, can transform several drummers into a sensitive and musical percussion section.
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<th>French</th>
<th>German</th>
<th>Italian</th>
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<td>il tamburo di legno africano</td>
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<td>le Tamburino</td>
<td>le tootot</td>
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<td>American Indian tom-tom (drum)</td>
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<td>le Tamburino</td>
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<td>l'Allegretto</td>
<td>l'inclunide</td>
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<td>la campana in lastra di metallo</td>
<td>l'alturo di sonagli</td>
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<td>le chapeau Chinois</td>
<td>der Schellenbaum</td>
<td>la barra di sospensione con i sonagli</td>
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<td>le campane</td>
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<td>gli uccelli</td>
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<td>der Bommus</td>
<td>il bombre</td>
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<td>la chaine</td>
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<td>la catena</td>
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<td>(bell) chimes</td>
<td>le carillon</td>
<td>le carillon</td>
<td>il giriglione</td>
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<td>le bloc de (en) bois</td>
<td>der Holzblock</td>
<td>il caricione</td>
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<td>das chinese,Chinese-Tom-Tom</td>
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<td>la sonerie di campane</td>
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<td>il blocco di legno</td>
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<td>la cassetta di legno</td>
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<td>le Conga-Trommel</td>
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<td>le bloc de metal</td>
<td>die Allegretto</td>
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**TABLE OF PERCUSSION INSTRUMENTS**

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**Additional Percussion Instruments**

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**Additional Percussion Instruments**

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**Legend:**
- **English**
- **French**
- **German**
- **Italian**
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<td>violett</td>
<td>violett</td>
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<tr>
<td>abattere</td>
<td>aus Rot</td>
<td>violett</td>
<td>violett</td>
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<tr>
<td>sonore</td>
<td>aus Rot</td>
<td>violett</td>
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<td>acuto</td>
<td>aus Rot</td>
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<td>fusto</td>
<td>aus Rot</td>
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<td>breve</td>
<td>aus Rot</td>
<td>violett</td>
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<tr>
<td>corto</td>
<td>aus Rot</td>
<td>violett</td>
<td>violett</td>
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<tr>
<td>piccole baghette</td>
<td>aus Rot</td>
<td>violett</td>
<td>violett</td>
</tr>
<tr>
<td>piccole mazzette</td>
<td>aus Rot</td>
<td>violett</td>
<td>violett</td>
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<tr>
<td>tom-tom a una pelle</td>
<td>aus Rot</td>
<td>violett</td>
<td>violett</td>
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<tr>
<td>membrana</td>
<td>aus Rot</td>
<td>violett</td>
<td>violett</td>
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<tr>
<td>piccolo</td>
<td>aus Rot</td>
<td>violett</td>
<td>violett</td>
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<tr>
<td>piccola baghette di legno</td>
<td>aus Rot</td>
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<td>violett</td>
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<tr>
<td>baghette di tamburo</td>
<td>aus Rot</td>
<td>violett</td>
<td>violett</td>
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<tr>
<td>militare</td>
<td>aus Rot</td>
<td>violett</td>
<td>violett</td>
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<tr>
<td>pelle cordiera</td>
<td>aus Rot</td>
<td>violett</td>
<td>violett</td>
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<tr>
<td>corde</td>
<td>aus Rot</td>
<td>violett</td>
<td>violett</td>
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<tr>
<td>senza corde</td>
<td>aus Rot</td>
<td>violett</td>
<td>violett</td>
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<tr>
<td>con corde</td>
<td>aus Rot</td>
<td>violett</td>
<td>violett</td>
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<tr>
<td>morbido</td>
<td>aus Rot</td>
<td>violett</td>
<td>violett</td>
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<tr>
<td>soffice</td>
<td>aus Rot</td>
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<td>violett</td>
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<tr>
<td>molle</td>
<td>aus Rot</td>
<td>violett</td>
<td>violett</td>
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<tr>
<td>baghette di feltro</td>
<td>aus Rot</td>
<td>violett</td>
<td>violett</td>
</tr>
<tr>
<td>baghette di timpani molle a feltro</td>
<td>aus Rot</td>
<td>violett</td>
<td>violett</td>
</tr>
<tr>
<td>baghette molle</td>
<td>aus Rot</td>
<td>violett</td>
<td>violett</td>
</tr>
<tr>
<td>di agiato</td>
<td>aus Rot</td>
<td>violett</td>
<td>violett</td>
</tr>
<tr>
<td>baghette di agiato</td>
<td>aus Rot</td>
<td>violett</td>
<td>violett</td>
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<tr>
<td>baguette (malloche) sur</td>
<td>cymbale</td>
<td>aus Rot</td>
<td>violett</td>
</tr>
<tr>
<td>cymbale</td>
<td>aus Rot</td>
<td>violett</td>
<td>violett</td>
</tr>
<tr>
<td>pietro colla</td>
<td>aus Rot</td>
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<td>violett</td>
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<tr>
<td>English</td>
<td>French</td>
<td>German</td>
<td>Italian</td>
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<tr>
<td>sticks</td>
<td>baguettes</td>
<td>Schlägel</td>
<td>bacchette</td>
</tr>
<tr>
<td>with fiber heads (knob)</td>
<td>baguettes en capo</td>
<td>Schlägel mit dem Kopf aus Kapok</td>
<td>bacchette di capo</td>
</tr>
<tr>
<td>strike normally</td>
<td>frapper à la manière ordinaire</td>
<td>gewöhnlich schlagen</td>
<td>colpi</td>
</tr>
<tr>
<td>strokes</td>
<td>coups</td>
<td>aufgehängt</td>
<td>piatti sospeso con bacchetta</td>
</tr>
<tr>
<td>suspended</td>
<td>suspendue</td>
<td>Becken frei mit Schlägel</td>
<td>sospeso</td>
</tr>
<tr>
<td>cymbal with stick</td>
<td>cymbale libre avec baguette</td>
<td>peischündig</td>
<td>bacchetta suonando</td>
</tr>
<tr>
<td>swirling</td>
<td>cinglant</td>
<td>Ruse</td>
<td>verga, verghe</td>
</tr>
<tr>
<td>switch (rod)</td>
<td>verge</td>
<td>anderes Becken nehmen</td>
<td>prendere l'altro piatto</td>
</tr>
<tr>
<td>take the other cymbal</td>
<td>prenez l'autre cymbale</td>
<td>Spannvorrichtung</td>
<td>tiraggio</td>
</tr>
<tr>
<td>tension</td>
<td>tirant</td>
<td>dick</td>
<td>spesso</td>
</tr>
<tr>
<td>thick</td>
<td>épais, épaisse</td>
<td>dicke Schlägel</td>
<td>bacchette grossa</td>
</tr>
<tr>
<td>thick sticks</td>
<td>baguettes épaisse</td>
<td>dicke Pauskenschlägel</td>
<td>bacchette di timpani grosse</td>
</tr>
<tr>
<td>thick timpani sticks</td>
<td>baguettes de timbales épaisse</td>
<td>dicke Pauskenschlägel</td>
<td>piccole bacchette di metallo</td>
</tr>
<tr>
<td>thin metal sticks</td>
<td>bâtons minces d'acier</td>
<td>Dünne Metallschlägel</td>
<td>bacchette a ottile</td>
</tr>
<tr>
<td>thin sticks</td>
<td>baguettes minces</td>
<td>dünnen Ruten</td>
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</tr>
<tr>
<td>thin wood sticks</td>
<td>baguettes minces en bois</td>
<td>kleine Holzschlägel</td>
<td>bacchette di timpani battute</td>
</tr>
<tr>
<td>timpani sticks</td>
<td>baguettes de timbales</td>
<td>Pauskenschlägel</td>
<td>bastone per il triangolo</td>
</tr>
<tr>
<td>triangle beater</td>
<td>baguette de triangle</td>
<td>Triangelhobel</td>
<td>bacchetta di triangolo</td>
</tr>
<tr>
<td>with coins</td>
<td>triller avec des pièces de monnaie</td>
<td>mit Münzen trillern</td>
<td>trifluere colli monete</td>
</tr>
<tr>
<td>tuned</td>
<td>accordé</td>
<td>gesäumt</td>
<td>accordato</td>
</tr>
<tr>
<td>turn</td>
<td>tourn</td>
<td>kreisformige Bewegung</td>
<td>giro</td>
</tr>
<tr>
<td>two-headed stick (double stick)</td>
<td>maillot double</td>
<td>zweibalkig Schlägel</td>
<td>bacchetta a due capi</td>
</tr>
<tr>
<td>two players</td>
<td>deux écoutants</td>
<td>zwei Spieler</td>
<td>duo esecutori</td>
</tr>
<tr>
<td>very hard</td>
<td>très dur</td>
<td>sehr schwer</td>
<td>molto duro</td>
</tr>
<tr>
<td>very hard sticks</td>
<td>baguettes très dures</td>
<td>sehr schwere Schlägel</td>
<td>bacchette molto dure</td>
</tr>
<tr>
<td>very hard timpani sticks</td>
<td>baguettes de timbales très dures</td>
<td>sehr schwere Schlägel</td>
<td>bacchette di timpani molto dure</td>
</tr>
<tr>
<td>very soft</td>
<td>très doux</td>
<td>sehr weich</td>
<td>molto morbido</td>
</tr>
<tr>
<td>very soft timpani sticks</td>
<td>baguettes de timbales très douces</td>
<td>sehr weiche Pauskenschlägel</td>
<td>molle</td>
</tr>
<tr>
<td>vibraphone mallets</td>
<td>baguettes de vibraphone</td>
<td>VIBraphonschlägel</td>
<td>bacchette di timpani molto molle</td>
</tr>
<tr>
<td>vibrose, to ring</td>
<td>laisses vibrer</td>
<td>klingen lassen</td>
<td>battenti di vibrafono</td>
</tr>
<tr>
<td>well-tuned</td>
<td>bien accordé</td>
<td>gut gestimmt</td>
<td>laasciare vibrare</td>
</tr>
<tr>
<td>(wire) brush</td>
<td>brosse en fil de métal</td>
<td>Drahtbürste</td>
<td>ben accordato</td>
</tr>
<tr>
<td>without jingles</td>
<td>sans tintements</td>
<td>ohne Schellen</td>
<td>scurolo di fil di ferro</td>
</tr>
<tr>
<td>with the fingersmall</td>
<td>avec les ongles</td>
<td>mit den Nagel</td>
<td>con le unghie</td>
</tr>
<tr>
<td>with the fingers</td>
<td>avec les doigts</td>
<td>mit den Fingern</td>
<td>con le dita</td>
</tr>
<tr>
<td>with the hands</td>
<td>avec les mains</td>
<td>mit den Händen</td>
<td>con le mani</td>
</tr>
<tr>
<td>with the knuckles</td>
<td>avec les jointures</td>
<td>mit den Knochen</td>
<td>colle nocce</td>
</tr>
<tr>
<td>with the two sticks on cymbal</td>
<td>avec deux baguettes sur une cymbale</td>
<td>mit zwei Schlägel auf Becken</td>
<td>con due bacchette a piatto</td>
</tr>
<tr>
<td>wooden</td>
<td>de bois</td>
<td>aus Holz</td>
<td>di legno</td>
</tr>
<tr>
<td>wood(en) sticks</td>
<td>baguettes de (en) bois</td>
<td>Holzschlägel</td>
<td>bacchetta di legno</td>
</tr>
</tbody>
</table>
Percussion Problems From the Podium
By Robert C. Snider

“If I could just get my Percussion section together for a few rehearsals, they would play so much better and I wouldn’t have so many problems with them during full band rehearsal.”

How many times have we though: if only..... For every much needed percussion sectional, up pop the conflicts: track meet, orthodontist appointment, soccer practice; the list is endless. But many problems can be solved during rehearsal without it becoming a “get with it, drummers!” horror story.

Step one is to organized your section into five areas, or “stations”: I. Timpani, II. Bass Drum – Cymbals; III. Snare Drum; IV, Miscellaneous Percussion; and V. Mallet Percussion. Divide the music into corresponding folders, write the folder number on the part and they’ll always be at the appropriate station. This should instantly halt the problem of “lost” music and more than six players reading off the same stand.

Step two is to provide carpet squares or towels that are placed on leveled music stands to be used at each station for trap tables. Noise and commotion from dropped sticks and instruments and the use of the floor as a trap table should be eliminated by using this step.

Step three is to have your percussionists position hand held instruments (triangle, tambourine, etc.) at a height so that they can see the instrument, music and conductor all in the same line of vision. Besides helping the players to focus their concentration on the instrument, the audience is given a chance to see and hear the instruments being performed.

Step four is up to you. By using your eyes and ears and the following hints, you can solve many of your percussion problems from the podium.

<table>
<thead>
<tr>
<th>PROBLEM</th>
<th>CAUSE</th>
<th>SOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simple tambourine rhythms are cluttered with extra jingles</td>
<td>Swinging the tambourine outward before moving it inward to strike against the other hand</td>
<td>Hold the tambourine still in one hand at about a 30 degree angle and strike it with the fingertips of the other hand</td>
</tr>
<tr>
<td>Tambourine shake rolls fail to have a definite start and/or stop</td>
<td>Rolls are played with just a simple shake</td>
<td>Start and stop each shake roll with a light tap at the indicated dynamic for a precise attack and release</td>
</tr>
<tr>
<td>Tambourine jingles ring on after a tap or roll</td>
<td>Tambourine is being held in a vertical position allowing the jingles to ring freely</td>
<td>End the tap or roll with the tambourine in a horizontal position so the jingles lay flat</td>
</tr>
<tr>
<td>Calfskin tambourine sounds “flat”</td>
<td>Worn out head or high humidity</td>
<td>Tighten or dry out head</td>
</tr>
<tr>
<td>Triangle has a “metallic” buzz while played from a music stand</td>
<td>Sympathetic vibrations from the stand to the triangle via the triangle clip</td>
<td>Hold the triangle with the hand; If it must be hung on a stand, place a clothe between the clip and stand</td>
</tr>
<tr>
<td>Triangle sound is more clang than “ding”</td>
<td>Striking hard in the middle of one of the triangle sides</td>
<td>Play closer to the closed corner with a lighter touch</td>
</tr>
<tr>
<td>Triangle has “woody” or “clickish” sound</td>
<td>The old notorious “hit the triangle with the drumstick”</td>
<td>Have suitable triangle beaters near the instrument</td>
</tr>
<tr>
<td>Problem Description</td>
<td>Solution</td>
<td></td>
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<tr>
<td>-----------------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>When quickly dampening, a &quot;whoop&quot; sound comes from the triangle</td>
<td>Muffling the triangle too quickly</td>
<td></td>
</tr>
<tr>
<td>Triangle roll sounds to rhythmic or agitated</td>
<td>Roll too slow if too rhythmic and too fast if agitated</td>
<td></td>
</tr>
<tr>
<td>Claves have a dead sound</td>
<td>Improper grip</td>
<td></td>
</tr>
<tr>
<td>Latin guiro part lacks that proper &quot;Latin feel&quot;</td>
<td>Playing all notes as short scrapes</td>
<td></td>
</tr>
<tr>
<td>Woodblock has a bright but thin note</td>
<td>Playing with tips of wood snare drum sticks</td>
<td></td>
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<tr>
<td>Floppy hand castanets</td>
<td>Loose or stretched clapper cords</td>
<td></td>
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<tr>
<td>With the motor off, the vibraphone tone seems muffled</td>
<td>Resonator disks are in a horizontal position</td>
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<tr>
<td>Suspended cymbal stand rattles during rolls</td>
<td>Top section of stand is rattling inside the middle section</td>
<td></td>
</tr>
<tr>
<td>Suspended cymbal &quot;crashes&quot; sound thin and pingy</td>
<td>Striking the cymbal with the tip of the stick between the edge and crown</td>
<td></td>
</tr>
<tr>
<td>Suspended cymbal rolls sound cluttered</td>
<td>1. Mallets too hard or too soft 2. Rolling too close to the crown 3. Rolling too fast or with a double bounce roll</td>
<td></td>
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<tr>
<td></td>
<td>1. Try a medium yarn mallet 2. Play at the edges at 9 &amp; 3 o’clock 3. Use a single stroke roll just fast enough that rhythm isn’t noticeable</td>
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<tr>
<td>Bass drum rolls sound thin</td>
<td>Using lightweight timpani sticks for rolls</td>
<td>Use two bass drum beaters of similar size and weight or a pair of factory matched bass drum beaters</td>
</tr>
<tr>
<td>Uneven bass drum rolls</td>
<td>1. One-handed roll with a double ball beater</td>
<td>1. See above</td>
</tr>
<tr>
<td></td>
<td>2. Beaters not hitting in the same head area</td>
<td>2. Play rolls with beaters making contact with the head the same distance from the rim</td>
</tr>
<tr>
<td></td>
<td>3. Double bounce bass drum rolls</td>
<td>3. Use a single stroke roll at a speed not fast enough to produce a rhythmic pulse</td>
</tr>
<tr>
<td>Snare drummer producing uneven sounds from the drum</td>
<td>1. One stick hitting near the center and one near the edge</td>
<td>Align the drum so the snare strainer lines up with your belt buckle and play over the snare strainers with the stick both the same distance from the edge and striking within a half inch of each other</td>
</tr>
<tr>
<td></td>
<td>2. One hand playing from a different stick height than the other</td>
<td>2. Stick heights should be the same unless there are accents or embellishments</td>
</tr>
<tr>
<td></td>
<td>3. Cracked or taped-up sticks</td>
<td>3. Replace sticks</td>
</tr>
<tr>
<td>Snares buzzing when drum is not being played</td>
<td>Snares left on during periods of rest</td>
<td>Release snares whenever possible</td>
</tr>
<tr>
<td>Thin sound coming from a well-tuned snare drum</td>
<td>Sticks too light and thin</td>
<td>Use a snare drum stick of a 5A weight or more for general purpose</td>
</tr>
<tr>
<td>Chimes don’t cut through a full band passage</td>
<td>Chimes sounding much louder near the player and not projecting to the audience</td>
<td>In any passage above a mezzo forte, suggest the player perform one dynamic level louder than marked</td>
</tr>
<tr>
<td>Mallet parts being played with correct mallets but the tone is inconsistent</td>
<td>Striking the bars over the nodal tones (over the strings)</td>
<td>Strike near the center of the bar of on the extreme edge of the “black keys”</td>
</tr>
<tr>
<td>Crash cymbals and bass drum parts don’t enhance a full ensemble entrance</td>
<td>Dampening the sounds before the ensemble release often due to incorrectly notated parts</td>
<td>Encourage players to match the attack and release of the ensemble regardless of what the written note values are</td>
</tr>
</tbody>
</table>
Presenting a Percussion Clinic for High School Students

Robert Snider

Being fresh out of a college or other advanced percussion environment, presenting a clinic to high school students and their directors might not seem very challenging. After all, we’ve studied the repertoire, mastered techniques, and have been part of percussion sections and ensembles. All we have to do is go out and spread our acquired knowledge and experience.

If this sounds too easy, you’re right! One of our greatest challenges in presenting clinics is to zero in on the needs of students. What can you share that will help them play tomorrow, next week, and next semester?

In many schools around the country, I’ve observed the same basic problems plaguing percussion sections; and a two-hour master-class covering timpani solos, snare drum excerpts, and xylophone rags is wasted if the school section has trouble tuning, rolling, and reading. Let me share some points that shouldn’t be overlooked when presenting a clinic for high school percussion students and their music teachers.

Timpani

Tuning – Simply put, students need to learn basic intervals and the notes in bass clef. With a little practice, students can take their “note” from an A = 440 tuning fork, softly hum or hear the pitch in their heads, place an ear near the head, and softly tap the head with their fingers while moving the pedal up to achieve the desired pitch. Try to discourage fishing for the exact pitch. If you miss it, quickly start over again and pedal the drum up to the pitch. If you’re slightly sharp, a gentle push on the head will often settle the head down to where you want it. With a tuning fork you avoid the race back and forth to the bells and we can all do without the “harmonica concert” one gives when using a pitch pipe.

Playing area – For most students, it’s easier to play between two drums by keeping the inside stick near the rim and the other stick about five inches outward. Demonstrate the sound this gives. Then, have them play within an imaginary four-inch diameter circle directly over the “toe of the pedal.” This will place the sticks the same distance from the rim, about six inches inward. Another way to show this is to have students imagine a triangle between the center of the drum head out to the “five and seven o’clock” tension rods. The best playing spot will be in the center of the triangle.

Dampening – It appears that the general rule was once: “play the note and dampen the rest...” Well, that’s not quite true. Students need to realize that dampening is used for different effects, the primary being to stop the sound of the drum when the music stops. If the player dampens the drum at each rest, besides sounding awkward, the sound of the dampening can often be more noticeable than the actual notes. Encourage dampening to match the phrasing of the ensemble, by imitating long and short notes via stick articulation, and dampening at phrase endings.

Dampening is also used to stop unwanted ring from other drums:

```
    0  1  2  3  4  5  6  7  8  9
```

There would be a tendency to just dampen the “C” on beat five. This would cause a still audible “G” to carry over. To stop the “G,” the student should dampen the “G” on beat three and the “C” on beat five. This would give a clear “C” and also eliminate any carryover of the “G.”

Rolls, Sticks and Playing Range – Many students don’t understand how a timpani roll relates to the tightness of the drum head (pitch). If one demonstrates stick response in the low and high range of an individual drum to students, they gain the concept of roll speed by how slow or fast the stick is thrown back. The point to get across is that you can roll slower in the low range and faster in the high range. Students can quickly understand that concept by playing smooth, relaxed single strokes just fast enough to not produce a rhythm. Loud and soft rolls can be taught by stressing stick height. Keep the same roll speed and feel, but raise the sticks for louder and lower them for softer dynamics.

Remind students that timpani sticks are also for articulation and effect, not just for loud and soft. A hard stick can produce a nice clear rhythm at a very soft dynamic, just as a soft cartwheel stick can produce a full forte roll. The sticks will also last longer if kept off the floor, and not used as a hand sponge or facial pad!

Most complaints about pedals not holding can be solved by getting the drums in their proper playing range. For a standard set of four timpani (32"-29"-26"-23"), position the pedal (balanced action type) at the halfway or midpoint, and tune the drums to F↓-A↓-D↓-G↓. If the pedal won’t hold and moves toward the “toe-down” position, loosen the spring tension knob. If the pedal moves toward the “heel-down” position, tighten the knob a bit. Chances are with the drums in their proper range spring tension adjustments won’t be necessary.

Snare Drum

Tuning – Many school snare drums are tuned by raising the top head via the tone control and the bottom head by tightening the snare. Loosen both and search out the drum keys. The batter head should be tight enough to give a good stick rebound. The response of a stick off a hard floor is a good guideline to get them started. The snare head can then be adjusted to provide pitch and snare response. Demonstrate extremes in tuning to show a choked drum or one that is too loose. The important thing is to provide a way of getting a good snare drum sound.

Have the students in their own words take you through the tuning steps. The result should be a high pitched drum with a crisp snare sound.

Position – The easiest way to solve stance and positioning problems is by using a “ghost drum.” Have students stand behind an imaginary snare drum and pretend to play. Chances are good that they will have the...
correct (and natural) arm bend, elbow-body relationship, and stick position. Most students adjust to the position of the drum and thus create many bad habits. Have the drum come to the student.

Technique – Don’t overlook four basic snare drum techniques: single strokes, double strokes (rudimental), multiple bounces (buzz), and flams. If they can’t handle these four basics, students can get smothered by the 26-plus rudiments and the multitude of technique builders on the market. Even the most complex solos can be broken down into these four areas.

Rudimental and buzz rolls can be taught by using rhythmic roll bases where the student plays the roll as a rhythm and either double strokes or buzzes the rhythm. Tied and untied rolls differ in how you treat the last note of the roll bass rhythm. If it’s untied, play the last note as a soft tap; if it is tied, simply continue the bounce or buzz:

```
| o | t | T |
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- o = bounce or buzz
- t = unaccented tap, one shade softer than "o"
- T = ending tap at dynamic volume of "o"

Rudimental or Buzz? The use of rudimental or buzz rolls depends on the style of the music. If the style is not obvious the students should be encouraged to imagine the setting of the music: outdoors-inside, martial-orchestral, rough-smooth; or ask: Do the "rolls" imitate a sustained sound (buzz) or a rhythmic pulse (rudimental)?

Mallet Percussion

Position – While the luxury of height adjustment isn’t always available, the "ghost xylophone" can also be helpful in correcting position and stance problems. As with the "ghost snare drum," by pretending to play the mallet instrument, students will tend to use proper (and more natural) arm-hand position and will also place the keyboard at a comfortable distance from their body. All they have to do next is have the instrument come to them and then adjust to the keyboard height.

Mallets – For general playing and to achieve the specific characteristic sound of each instrument, try the following:

- bells: hard plastic or brass
- xylophone: hard plastic
- vibes: medium hard yarn
- marimba: medium hard yarn or rubber

Reading – To become a successful mallet reader a student needs three things: 1) to be able to read treble clef, 2) to know the names of the notes on the keyboard and where they are in relation to the twos and threes (the accidental keys), and 3) to understand and use peripheral vision.

Try this simple drill with your students:

1) Have them tell you where certain notes are on the keyboard in relation to the twos and threes. (C is at the bottom of the twos, B is at the top of the threes, D is between one and two of the twos, etc.)

2) Have them play the different Cs, Bs and Ds at the keyboard by only using the twos and threes as a reference.

3) Final step...place music at the keyboard (simple melodies) and by keeping their eyes focused on the music, use peripheral vision to read and play the melodies, using the twos and threes as their only reference.

General Percussion

Bass drum and cymbal players should be aware of the proper lengths of their notes, realizing that their notation isn’t always correct: in that regard. Listen to the ensemble and match length, fullness, and decay depending on with whom you’re playing.

Metal percussion (triangle-cymbals) should be allowed to "speak" before dampening. Dampening too quickly will result in a choked-unmusical sound.

Techniques of tambourine, triangle, etc., are often best taught by creating a performance problem for your students and guiding them to the playing techniques needed (thumb roll or shake, fist or knee-fist). Stress the visual aspects of percussion performance. Most hand held percussion instruments can be raised up so that performers can see what they’re striking, see the music and also the conductor, all in the same line of vision. This also makes the instrument visible to your audience.

Use carpet squares or towels to create trap tables out of spare music stands. This will help to eliminate unwanted noise often associated with percussion sections.

When presenting a clinic, remember to educate and entertain. This means you should know your audience, understand their needs, and realize what they can learn and use from your presentation. Doing a clinic should be fun for both you and your audience. Your clinic should inspire and, more importantly, it must pass along tools so that your audience can implement that inspiration.

Robert Smider is a percussionist in the United State Navy Band in Washington, DC and a member of the PAS Education Committee.
Percussion Method Books
A Bibliography

Don Dregalla, John Papastefan, and William Jastrow

This annotated bibliography does not include all method books and texts available for each category of percussion instruments. Rather, an attempt has been made to list materials that have gained reasonably wide usage, have a "track-record," and are easily obtainable. It is hoped that both students and teachers will benefit from this listing. Some of the information listed here is reprinted with the permission of William C. Brown Publishers.

**Snare Drum**

**Britton, Mervin, Creative Approach to the Snare Drum** (Byron Douglas Publishers). A fairly rapid-paced book designed for the beginning snare drummer. It begins with 16th notes in 4/4 meter and progresses to whole and half notes. Almost all exercises take the form of duets. The singing of rhythms is encouraged as an aid to rhythmic understanding.

**Cirone, Anthony, The Orchestral Snare Drummer** (Belwin Mills Publishers). A non-rudimental approach to the teaching of snare drum. This is an excellent and very sensible book that introduces the beginner to simple ensemble playing, flexibility, and sound musicianship.

**Cirone, Anthony, Portraits in Rhythm** (Belwin Mills Publishers). Fifty studies for snare drum with emphasis on dynamics and musical form. For the advanced snare drummer.

**Coffin, James, The Performing Percussionist Books I-II** (Barnhouse Publishers). A moderate to rapidly paced book designed to give the student a total percussion experience. The snare part is rudimental based with greater emphasis on musicality. Information on other percussion instruments is also included.

**Feldstein, Saul & Weber, Fred, Drum Student** (Belwin Mills Publishers [part of the Elementary Series]). Exercises and solos are of high musical quality. New items are highlighted in red for easy reference and emphasis.

**Firth, Vic, Snare Drum Methods Book I-II** (Carl Fischer Publishers). Good basic method books. Book I is standard and very musical in its approach. Book II contains rhythmic pattern exercises emphasizing triplets, compound meters, rolls, and dotted rhythms. There is plenty of potential for musical study.


**Goldenberg, Morris, Modern School for the Snare Drum with a Guide for the Artist Percussionist** (Chappell and Company Publishers). Considered by many as the outstanding book in its field; snare drum playing is approached non-rudimentally. In addition to the snare drum, numerous other percussion instruments are covered. Percussion scores from the orchestral literature are also included.

**Harr, Haskell, Drum Method for Band and Orchestra** (M.M. Cole Publishers). A basic rudimental text helpful in developing a foundation of solid snare drum technique.


**McMillan, Thomas, 20th Century Orchestral Snare Drum Studies (Creative Music)**. An excellent collection of representative snare drum rhythmic patterns from the contemporary percussion literature — by such composers as Bartok, Chavez, Copeland, and Stravinsky.

**Payson, Al, Beginning Snare Method** (Payson Percussion Publishers). An excellent method with a recording for playing simple rhythms with melodic background. A variety of approaches to reading and technical skills are taken in this very musical book.


**Payson, Al & Lane, James, Concert Etudes for the Snare Drum** (Payson Percussion Publishers). Very challenging and musical etudes based on 20th century music. Also included are several duets and stick control exercises.


**Podleski, Benjamin, Standard Snare Drum Method** (Belwin Mills Publishers). Provides many exercises and etudes for the snare drum; excellent reading material.

**Price, Paul, Beginning Snare Method** (Morris Publishers). For use with mature beginning students; contains some 250 studies derived from rudiments. Good illustrations make this a good book for individual or class instruction.

**Stone, George, Stick Control** (George Stone, Inc., Publishers). A very strong text on developing technique and sticking patterns. Excellent technical supplement for any drummer. A must have.


**Wilcoxon, Charles, The All-American Drummer** (Ludwig Publishers). One of several excellent texts by Wilcoxon. Contains many different and challenging rudimental
Ed Soph on the Calato Double Spring Bass Drum Pedal...

"In 30 years of drumming, the Calato bass drum pedal is the smoothest pedal I have ever played. There is no increased tension as the beater moves to the perpendicular — tension of the pedal remains consistent throughout the stroke.

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Calato USA 4501 Hyde Park Blvd. Niagara Falls, NY 14305 (716) 285-3546
In Canada: Calato Canada 8407 Stanley Ave., Unit 1 Niag. Falls, Ont. L2E 6X8 (416) 357-2680
Green, George Hamilton, Elementary Studies for Xylophone and Marimba (Meredith Music Publishers). An outstanding elementary method that provides a comprehensive approach to mallet playing.

Green, George Hamilton, Instruction Course for Xylophone (Meredith Music Publishers). A complete course of fifty lessons by the xylophone master. Included are raga-tune, improvisation, blues, and exercises for individual hand development.

Jolliff, Art, 78 Solos for Marimba (Belwin Mills Publishers). For the intermediate player, this book contains 3 and 4 mallet studies based on classical melodies. There is potential for developing expression and chordal reading skills.

Kraus, Phil, Modern Mallet Method (Belwin Mills Publishers). Three volumes of technically progressive studies. This is good supplemental material for students preparing for jazz and studio work.

Lang, Morris, 14 Contemporary Etudes for All Mallet Instruments (Belwin Mills Publishers). An introduction to some of the many compositional styles of 20th century music and includes avant-garde notation. Exercises cover 12 tone, modal, jazz, etc. An excellent text.

Payson, Al, Elementary Marimba and Xylophone Method (Payson Percussion Publishers). An excellent beginning method book based on a large collection of songs by classical composers. Reading skills and musicality are emphasized in scale and arpeggio studies.


Peterson, Howard, Fundamentals of Holding 2,3,4 Hammers in One Hand (H. Adler Publishers). A collection of studies dealing, as the title suggests, with development of hand muscles and technique along with reading skills.

Stevens, Leigh Howard, Method of Movement for Marimba (Marimba Productions Publishers). Based on the author’s rotary stroke method of playing the marimba, there are 590 exercises devoted to developing this technique. For the serious 4-mallet player.

Stone, George, Mallet Control (George Stone Inc., Publishers). Supplemental studies to be memorized and transposed. Designed to build solid technique.

Whaley, Garwood, Musical Studies for the Intermediate Mallet Player (Meredith Music Publishers). A complete intermediate method that is well organized and very musical. Includes sections on technique, reading, duets, and 4-mallet playing.


Mallet Instruments: Vibes/Jazz

Burton, Gary, Four Mallet Studies (Creative Music Publishers). A study of technical elements common to four-mallet playing, mostly adaptable for vibes. It deals with grip, hand and mallet independence, and voicing techniques. All areas contain many examples.

Burton, Gary, Solo (Creative Music Publishers). A collection of six solos for the vibes. Solos are intermediate-to-very difficult.

Burton, Gary, Introduction to Jazz (Creative Music Publishers). For the intermediate-to-advanced player, this work contains technical exercises on scale and arpeggio patterns with chord symbols. Written discussions are included on muffling, grace notes, and melodic analysis.

Davis, Thomas, Improvis, Vibe-verse and Otherwise (Phantom Music Publishers). A rapidly-paced book to serve as an introduction to improvisation. This text requires a strong theory background or supplemental teaching.

Delp, Ron, Vibraphone Technique (Berklee Press Publishers). Method for jazz vibraphone including 4-mallet chord voicing, chord progressions, and analysis, basic theory, comping techniques, and sample charts. A good book for the serious jazz player.


Green, George Hamilton, Modern Improvising and Application of Ideas to Melody (Meredith Music Publishers). A conceptual approach to the xylophone through Green’s system of improvising.

Kraus, Phil, Vibes for Beginners (Adler Publishers). Good beginning vibe method.

Drum Set

Burns, Roy & Malin, Lewis, Practical Method of Developing Finger Control (Henry Adler Publishers). Intended as pre-jazz training, the book contains photos of different handholds for modern jazz drumming. Some reading material written for four-way coordination is included. Studies are in the form of short patterns.

Burns, Roy & Feldstein, Saul, Drum Set Artistry (Alfred Publishers). For the intermediate player, this book has eleven junior high/high school jazz rock charts in different styles. A good text for applying (in a lesson situation) various techniques to an actual chart.

Chapin, Jim, Advanced Techniques for the Modern Drummer (Jim Chapin Publishers). The exercises aid in perfecting the independent hand and foot coordination characteristic of modern jazz drumming. Most of the studies consist of one or two lines of counter-rhythms against the basic cymbal jazz beat. Snare drum technique and some set work are prerequisites. Book II is also available.

Dahlgren, Marvin & Fine, Elliott, 4-Way Coordination (Henry Adler Inc., Publishers). As the title indicates, this book is devoted to developing complete 4-way independence. The exercises are very difficult.

Davis, Thomas, A Practical Analysis of Independence (Creative Music Publishers). An excellently paced book for the starting set player. This is a basic text developing independence of hands and feet in swing styles. Each section includes separate patterns and a review exercise incorporating all patterns. Studies are noted three ways: as music would appear in a chart, a 12/8 translation of swing style, and combined sticking of ride pattern and steady rhythm.

Houllif, Murray, Today's Sounds for Drumset (Kendor Music Publishers). Good source material containing written-out rock, jazz and Latin beats.


Morello, Joe, New Directions in Rhythm (Jomor Publications). A good text on learning the Morello styles, especially in the 3/4 and 5/4 meters.

Morello, Joe, Rudimental Jazz (Jomor Publications). This is a modern adaption of the 25 rudiments for drumset. This is a good book for those with a rudimental background.
Morello, Joe, Master Studies (Modern Drummer Publishers). A fine text on developing drumset technique. It will help with accenting and controlling different pressures used in single strokes, double strokes, and closed rolls. An edition for the serious drumset student.

Moses, Bob, Drum Wisdom (Modern Drummer Publishers). Presents the author's thoughts on musicality, internal hearing, playing off melodies and vamps, the 8/8 concept, understanding resolution points, drumming and movement.

Reed, Ted, Progressive Steps to Syncopation for the Modern Drummer (Ted Reed Publishers). Study material for "double drums." Exercises vary in length, with many full-page solos. Syncopation, ties, and accents are stressed. A practical book for the ambitious student learning drum set.

Rothman, Joel, The Complete Rock Drummer (JR Publications). A virtual encyclopedia (200 pages) of rock drumming, with countless exercises for the cymbal, bass, and high hat. Rock beats in different meters are also explored as well as double bass drum playing.


Rothman, Joel, The Complete Show Drummer (JR Publications). Intended to help players handle show charts with smoothness and care. This text is simple to follow and progresses from easy to quite difficult show arrangements.


Thigpen, Ed, The Sound of Brushes (Ed Thigpen, Action/Reaction Publishers). Everything you wanted to know about brushes from the master.

Wilcoxon, Charley, Drum Method (Wilcoxon Publishers). A book that integrates the 26 rudiments into a swing solo concept. Designed for the drumset student just starting out.

**Miscellaneous Percussion Instruments**


**Cymbal Sources**

**California**
- Musician's Trading Post
  - 1014 Ocean St., Santa Cruz, CA 95060
  - (408) 429-8015
- The Sound Stage
  - 1615 N. Blackstone, Fresno, CA 93703
  - (209) 333-6531
- Connecticut
  - Caspar Percussion
    - 218 Hartford Rd., Middletown, CT 06457
    - (203) 643-1372
- Florida
  - Drum World
    - 1256 N. Military Trail
      - West Palm Beach, FL 33409
      - (561) 471-8555
  - Resurrection Drums
    - 2920 S.W. 30th Ave., Pembroke Pk, FL 33029
    - (305) 457-9080
- Georgia
  - Atlanta-Discount Music
    - 731 Clairmont Rd., N.E., Atlanta, GA 30341
    - (404) 457-5430
- Illinois
  - Chuck's Drum Shop
    - 385 34th St., Chicago, IL 60618
    - (312) 836-0252
- Kansas
  - E.M. Shortz Guitars
    - 2525 E. Douglas, Wichita, KS 67211
    - (316) 832-4650
- Maryland
  - Gordon Miller Music
    - 8000 Orchard Tree Lane
      - Towson, MD 21204
    - (301) 925-2595
  - Washington Music
    - 1115 Viers Mill Rd.,
      - Wheaton, MD 20902
      - (301) 948-2650
- Massachusetts
  - Jack's Drum Shop
    - 1998 Boylston,
      - Boston, MA 02215
    - (617) 247-9117
- Michigan
  - Creative Treasures
    - 9999 Metro Place Mall
      - Wayne, MI 48184
      - (313) 721-0414
  - Marshall Music
    - 6500 Allen Rd.,
      - Allen Park, MI 48101
      - (313) 385-5550
  - Waterman Sugar
    - 312 S. Hamilton Street
      - Saginaw, MI 48602
      - (517) 793-7600
- Music Quarters
  - 18314 East Nine Mile Road
    - East Detroit, MI 48021
    - (313) 777-2333
- Montana
  - Nichols Music Centre
    - (The Combo Depot)
      - 514 Central Avenue
        - Great Falls, MT 59401
        - (406) 727-0919
  - New Mexico
    - G. B. Music
      - 201 N. Main
        - Roswell, NM 88001
        - (505) 623-5620
- Nevada
  - Rhythm Section
    - 3889 Spring Mtn. Road
      - Las Vegas, NV 89102
      - (702) 673-0597
  - The Drum Shop
    - 608 S. Maryland Parkway
      - Las Vegas, NV 89101
      - (702) 790-8811
- New Jersey
  - Di Bella Music Company
    - 435 S. Washington Ave.,
      - Bergenfield, NJ 07621
      - (201) 385-6560
- New York
  - ALEX MUSICAL INSTRUMENT
    - 164 W. 48th St.,
      - New York, NY 10036
      - (212) 795-7763
  - Art Shell Music/Guitar Works Inc.
    - 232 South Main St., New City, NY 10956
    - (914) 634-7700
  - Manny's Music
    - 156 W. 48th St., New York, NY 10036
    - (212) 619-0564
  - Sam Ash Music
    - 124 Fulton Avenue
      - Hempstead, NY 11550
      - (516) 485-5522
  - U-Crest Music Center
    - 1206 George Urban Blvd.,
      - Hempstead, NY 11550
      - (718) 685-5143
- Ohio
  - Academy Music
    - 1445 Warrington Ctr., Road
      - Cleveland, OH 44121
      - (216) 381-8460
  - Academy Music Co.
    - 3801 Aurora Rd., Solon, OH 44139
      - (216) 248-1745
  - Mid Park Music
    - 19397 Smith Road Cleveland, OH 44130
      - (216) 884-8111
- Pennsylvania
  - Denny's Sound Reinforcement Systems
    - 1408 Graham Avenue Wilkesbarre, PA 18702
      - (714) 447-6683
  - Mars Drum Outlet
    - 507 Merchant St., Ambridge, PA 15003
      - (412) 265-6551
  - Progressive Music Inc.
    - 911 Walnut Street McKeesport, PA 15132
      - (412) 678-9233
- Texas
  - Danny's Music Box
    - 9417 Montanta,
      - El Paso, TX 79925
      - (915) 593-1035
  - Hermes Music
    - 409 S. Broadway,
      - McAllen, TX 78501
      - (512) 922-4321
  - Impact Percussion
    - 4404 San Pedro Ave.,
      - San Antonio, TX 78212
      - (512) 732-7157
  - Perkins' Music Co.
    - 2424 Broadway, Lubbock, TX 79401
      - (606) 783-1846
- Vermont
  - Advance Music Centre
    - 44 Church Street
      - Burlington, VT 05401
      - (802) 863-8692
- Wisconsin
  - Daryl Stuefinger Music
    - 10228 W. Greenfield Ave.,
      - West Allis, WI 53214
      - (414) 557-1553
techniques presented in article form. Emphasizes snare drum, timpani, mallets, and primary accessories. Good for the high school player.

Denov, Sam, *The Art of Playing Cymbals* (Adler/Belwin Publishers). This is an excellent reference and method book on all facets of cymbal playing.

Goldenberg, Morris, *Studies in Solo Percussion* (Chappell and Company, Publishers). A great deal of useful information for performing the multiple percussion solo literature is given. Exercises for 2, 3, 4 drums, as well as other instruments and works by some fine composers of percussion are included.


Udow, Michael & Watts, Chris, *The Contemporary Percussionist* (Meredith Music Publishers). A new collection of twenty multiple percussion solos for a variety of instruments. Solos are definitely in the contemporary style. This is a must for the serious student.

**Percussion References and Miscellaneous Texts**

Bartlett, Harry, *Percussion Ensemble Method for Teacher Education* (William C. Brown Publishers). This text is intended for a semester course in college percussion music education classes. Studies on a variety of instruments are appended.


Blades, James, *Percussion Instruments and Their History* (Prager Publishers). The history of percussion instruments is traced in great detail. With its hundreds of musical examples and rare illustrations, this book has become a classic.

Brindle, Reginald, *Contemporary Percussion* (Oxford University Press). This text deals with modern percussion instruments and techniques as used in 20th century music. Chapters include: classifications of instruments, notational practices, percussion writing, and foreign nomenclature. There are a large number of musical examples. A small record illustrates various sound possibilities.

Cirone, Anthony, & Sinai, Joe, *The Logic of It All* (Belwin Mills Publishers). Subtitled "Professional Secrets Applying Imagination to Percussion Techniques," this text provides insights into a variety of orchestral percussion techniques, including snare drum, cymbals, triangle, tambourine, bass drum, castanets, tam tam, and keyboards. Excellent photos of instruments, mallets, and playing techniques are on every page. A closing section of orchestral excerpts contains detailed observations and interpretations of the authors. This is an invaluable source for the aspiring orchestral percussionist.


Karl & Tannigel, Frits, *Handbook for Percussion Instruments* (Belwin Mills Publishers). This manual on percussion instruments includes pictures, musical examples, likely mallet selections, an excellent list of foreign music terms, and an instrument range chart. Some modern percussion symbols are also given.

Press, Arthur, *Mallet Repair* (Belwin Mills Publishers). 100 photos and drawings illustrate techniques for making and re-covering timpani and yarn-covered mallets. Tips concerning chime mallets, bass drum and tam tam beaters, brushes and felt tipped snare drum sticks are also included.

Reed, H. Owen & Leach, Joel, *Scoring for Percussion* (Prentice Hall, Inc.). The ranges and sound characteristics of commonly used instruments are discussed. Also included is a listing of lesser known instruments, description of modern instrument sizes, suggestions on mallet usage, and examples of standard notational practices. This text is highly useful for the music educator and a must for the arranger.

Donald Dregalla is conductor of the orchestra and wind ensemble at Milton Academy in Milton, MA, where he also serves as head of instrumental music. William Jastrow is chairman of the music department and director of instrumental music at Glenbard South High School in Glen Ellyn, IL. John J. Papastefan is associate professor of music at the University of South Alabama and serves as principal percussionist for the Mobile Opera. All are members of the PAS Education Committee and have previously written articles for this column.
The School Percussion Ensemble: Literature

by William Jastrow

Editor’s Note: This is the final article in a three part series dealing with the school percussion ensemble. Its purpose is to provide the band/orchestra director and the college percussion methods student with a step-by-step approach to developing a school ensemble program.

Over the past thirty years, the growth of percussion music as a serious form of composition and performance has expanded tremendously. The percussion ensemble has become recognized as a standard performing medium of contemporary music. Percussion solo literature has matured from military and novelty music to a level that ranks equally with “serious” literature available for many other instruments. Furthermore, composers are continuing to explore the tonal and technical possibilities of traditional and non-traditional percussion instruments, thus increasing the demands on the percussionist for musical sensitivity and technical facility. Gone are the days when the roll of the percussionist consisted of playing a few technical patterns on the snare drum or “boom-chick” accompaniments with bass drum and cymbals.

Developing a musical and comprehen- sive percussion section is not an easy task for the school director, regardless of the talent of the students. This problem is probably due to the fact that it is more difficult for the untrained player to perceive and create musical sounds from instruments that generally have indefinite pitches. It is important, therefore, that the percussionist, both student and professional, study and perform literature that develops sensitivity to timbres and textures as well as rhythmic relationships. The percussion ensemble can offer students this valuable learning experience.

Ensemble literature can and should be selected not only to develop technical skills on a variety of percussion instruments, but to enhance the musical understanding and perceptions of the performer. It is this philosophy that has served as the foundation for the literature selected for this article. The works cited are by no means a complete list of worthwhile percussion ensembles. As in other instrumental areas, there is no shortage of percussion ensemble music, particularly in the rudimental/military style. It is the voluminous amount of available literature that makes the conscientious selection of suitable works very difficult. Selection of percussion music often becomes a guessing game; a “stab in the drawer” approach. This method is often costly to both the student and the teacher in terms of money, time and musical value. This article is designed to serve as a resource for those who are unable to research the hundreds of available compositions and/or for those who lack the expertise in evaluating percussion literature. The reader is encouraged to consult the composers and publishers cited in obtaining further information about other compositions.

For this article, the Beginning Level of difficulty refers to works appropriate for elementary students in their first two years of instruction (Grades 5 and 6). The Intermediate Level literature is directed towards junior high school students (Grade 7, 8 and 9). The Advanced Level literature applies to senior high school students (Grades 10, 11 and 12). Using these standards, the difficulty level noted here may differ from that given by the composer, publisher, or state solo and ensemble lists.

Traditional Rudimental Ensembles
Beginning Level

Intermediate/Advanced Level
Brazukas, Paul P. Revolution. (Quintet – 3 field drums, bass drum, cymbals) M. M. Cole.
Butts, Carroll M. Five Drums in Drive. (Quintet – 2 snare drums, tenor drum, bass drum, 2 timpani) C. L. Barnhouse.
McCormick, Robert. 32 Duets for Percussion. (Duets) G. Schirmer.
McMahon, John. Trio con Brio. (Trio – 3 field drums) Studio P/R.
Peters, ______. March of the Eagles. (Quintet – 2 timpani, snare drum, 2 tom-toms, cymbals, bass drum) KSM.

Beginning Percussion Ensembles
Brown, Thomas. Drum Fun. (Quartet collection – basic instrumentations including timpani and bells) Kendor.
Curnow, James. Bingo for Percussion. (Section feature – triangle, woodblock, snare drum, tenor drum, crash cymbal, bass drum – band accompaniment) Studio P/R.
Davis, Thomas L. Plat Baroque. (Sextet – 2 keyboard instruments, timpani, drum set, triangle, bongos, suspended cymbal) Creative Music.
Feldstein, Saul. Breeze Easy Percussion Ensembles. (Quartet collection – snare...
drum, bass drum, cymbals, accessories) M. Witmark.

Intermediate Percussion Ensembles


Intermediate Percussion Ensembles

Kabalevsky, Dmitri. Comedian’s Galop. (Section or solo feature – one or multiple xylophones – band accompaniment) Meredith Music.
LaRosa, Michael. One for Two. (Duet – 2 drum sets) Somers Music.
Latimer, James F. Motif for Percussion. (Septet – 4 timpani, 4 tom-toms, snare drum, woodblock, 4 temple blocks, triangle, suspended cymbal) M. M. Cole.
Ostling, Acton. Suite for Percussion. (Quartet – snare drum, bells, triangle, timpani, woodblocks, 3 temple blocks, bass drum, suspended cymbal) Belwin.
Spears, Jared. Mosaics. (Sixtet – snare drum, 4 tom-toms, tambourine, woodblock, suspended cymbal, bass drum, triangle, 2 timpani) C. L. Barnhouse.
Spears, Jared. Scamper. (Quartet – 4 tom-toms, snare drum, bass drum, triangle, woodblock, suspended cymbal, 2 timpani) C. L. Barnhouse.

Advanced Percussion Ensembles

Bonham, Louis. Four Stories. (Quartet – 4 drum sets) Try Publications.
Cirone, Anthony J. Japanese Impressions. (Quintet – bells, xylophone, snare drum, tom-tom, tenor drum, suspended cymbal, timpani, finger cymbal, bon-
gos, bass drum, woodblocks, temple blocks, bamboo wind chimes) Belwin-Mills.

Clark, Robert Keys. Patterns for Percussion. (Quintet — snare drum, bongos, tam-tam, tambourine, woodblocks, timbales, sizzle cymbal, slide whistle, 5 tom-toms, bass drum, field drum, maracas, guiro, slapstick, triangle, temple blocks, finger cymbals, claves, cowbell, ratchet, 2 timpani, castanets, suspended cymbal) Theodore Presser.


Colgrass, Michael. Six Allegro Duets. (Duet — 4 drums) G. Schirmer.


Eyles, Randy (arr.). Flickles Rag. (Section feature — marimba, xylophone, drum set, misc. “traps” — band accompaniment) Meredith Music.


Fink, Siegfried. Ritmo. (Septet — bongos, conga drum, drum set, maracas, claves, vibraphone, cowbell, shaker, guiro, tam-tam) Associated Music.

Firth, Vic. Encore in Jazz. (Septet — 4 timpani, 3 drums, vibraphone, marimba, Indian drum, cowbell, bongos, conga drum, drum set) Carl Fischer.

Frock, George. Three Asiatic Dances. (Sextet — basic instrumentation plus vibraphone and brake drums) Southern Music.

Gibert, Donald K. Rondo for Percussion. (Septet — triangle, tambourine, cymbal, timpani, snare drum, bass drum, tom-tom, woodblock, tam-tam) Southern Music.

Gibert, Donald K. Soliloquy for Percussion. (Quintet — tom-toms, marimba, timpani, snare drum, cymbals, chimes, bass drum) Southern Music.


Hovhaness, Alan. October Mountain. (Sextet — bells, marimba, 3 timpani, tenor drum, bass drum, tam-tam, gong, cymbals) C. F. Peters.


O'Reilly, John. Three Episodes. (Quintet — 4 tom-toms, field drum, snare drum, bass drum, woodblock, guiro, suspended cymbal) G. Schirmer.


Russell, Armand. Concerto No. 2. (Sextet — vibraphone, temple blocks, 4 timpani (tom-toms), sleigh bells, maracas, snare drum, guiro, antique cymbal, xylophone, bongos, tom-tom, suspended cymbal, triangle, claves, tambourine, bass drum, tam-tam, woodblock) G. Schirmer.

Spears, Jared. Cameo Suite. (Sextet — snare drum, triangle, woodblock, cymbals, temple blocks, bells, xylophone, vibraphone, marimba, chimes) C. L. Barnhouse.

Spears, Jared. Ragtime Renegades. (Trio — snare drum, woodblock, 3 tom-toms, suspended cymbals, whistles) C. L. Barnhouse.

Spears, Jared. Two Frescos. (Sextet — 4 timpani, 4 tom-toms, triangle, suspended cymbal, bells, marimba, vibraphone, xylophone, chimes) C. L. Barnhouse.


Tull, Fisher. Sonatina. (Quartet — multiple percussion setups for each player) Boosey-Hawkes.

Udow, Michael. African Welcome Piece. (12 players plus chorus — 4 tom-toms, 4 timpani, oil drum, 2 snare drums, bongos, timbales, bull roars, various shakers) Sam Fox Publishing.


Intermediate Mallet Ensembles


Susato, Tielman. (Arr. by Finley) Ronden Suite. (Sextet) C. F. Peters.

Advanced Mallet Ensembles

Bizzet, Georges. (Arr. by Jeanne) Farandole from L’Arlesienne Suite No. 2. (Quintet — 3 marimbas) Permus.


NOTE: Due to physical limitations of rehearsal space and/or equipment, mallet ensembles are often limited to university and conservatory programs. However, mallet ensemble experience can greatly improve keyboard sight-reading skills as well as enhance a student’s understanding of melodic, harmonic and rhythmic concepts. Much of the keyboard literature can be adapted to just one or two instruments for as many as four players. In addition, almost any like instrument duet or trio (violins, flute, oboe, clarinet, saxophone, trumpet, horn) can be arranged for keyboard ensemble. Two excellent sources of mallet ensemble literature are: Permus Publications, P.O. Box G033, Columbus, OH 43202, and Marimbas Unlimited, 5140 Vineyard Avenue, North Hollywood, CA 91601.

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Garwood Whaley, editor
Percussion Education
TIMPANI
OR “KETTLEDRUMS”

Handling/Moving/Care:

♦ ALWAYS cover the instrument when not in use.
  - Protects from unnecessary damage and dust

♦ NEVER set anything on the head.

♦ NEVER move a timpano by the rim. Move it by grabbing the braces. Moving it by grabbing the rim will pull the drum out of tune.

♦ REMEMBER- Dents in the head and bowls will severely effect the tuning capability and sound production of the timpani

Set-up:

♦ The largest drum should always be placed furthest left of the player.

♦ Set-up the drums so that the pedals face inward and are easily accessible by the feet.

♦ Leave a slight space between all the drums. Never let the rims touch! If they are touching they will rattle while you play.

Timpani Setup

- 32"
- 29"
- 26"
- 23"
Posture:

♦ Proper technique usually requires a stool for correct height positioning and facility in tuning.
  ▪ NEVER sit with you bottom completely on the stool. We only use it to lean on. Sit on the front part only.
  ▪ Sit close enough that you don’t have to extend your arms
♦ Your feet should touch the ground and be able to pedal while playing.
♦ Sit tall – DON’T SLOUCH!!!!!!!
♦ Pivot at the waist to reach all drums
♦ Elbows should be relaxed at the sides

Mallets:

♦ MALLET HEADS:
  ▪ 2 general categories:
    • Cartwheel – Used for soft or inarticulate playing
      ○ Flatter surface
      ○ Seam runs down side. AVOID playing on the seam. If your mallets have a seam in the playing area, mark it and always face it towards you while playing
    • Ball or spherical – Used for general or staccato playing
      ○ Felt pulled over the top (sock-like) – Usually no seam to worry about
MATERIAL OF MALLET HEAD:
- Wool/Felt – Most popular
- Wood – NEVER use snare sticks
- Moleskin

SHAFTS:
- Bamboo – Light and most popular
- Hickory
- Plastic – Not recommended
- Aluminum/metal
- THIS SHOULD PROVIDE A LIGHT AND BALANCED FEEL TO THE MALLET (important in the production of good sound).

CARE:
- NEVER touch the felt part of the mallet with your hand.
  - The oil from your hands will absorb into the felt and collects dirt which eventually effects sound production
- NEVER set your mallets on the floor
- ALWAYS use a trap stand with a clean towel or clothe for the mallets to rest on
- ALWAYS store your mallets in a plastic bag

Mallet choice can be one of the most important influences in the good sound production. Having a good selection for every situation is recommended

Ideally, as a player you want a pair of mallets for each of the following situations:
- Soft sticks (Cartwheels?)
- General Purpose Sticks
- Staccato Sticks
- Ultra Staccato Sticks
- Wooden Sticks
Playing Area:

♦ 6 inches from the edge of the drum closest to the player
  ▪ Striking too close to the rim produces a thin sound
  ▪ Striking too far in the center produces less tone

♦ Mallets should be 6” apart for legato playing and close together for articulate playing

![Beatng Spots](image)

Tuning to a pitch:

♦ Find desired pitch through a pitch pipe, piano, or mallet instrument

♦ You may use the tuning gauge to help but these are not entirely accurate – ESPECIALLY WHEN PEOPLE DECIDE TO PLAY WITH THEM BY MOVING THEM AROUND!!!!!!!!!!!!

![Image of Timpani](image)

♦ Strike-Glissando Method:
  1. ALWAYS starts with the heal of the pedal in the lowest position (drum tuned low)
  2. Listen to the desired pitch
  3. Strike the drum and pedal up to the desired pitch
     ▪ Striking the drum with the mallet is usually best rather than with the finger because it’s a more accurate sound. Use finger when it needs to be done quietly.
     ▪ DO NOT use the finger flick – this produces a higher pitch than with the mallet
  4. Strike the drum again as need to match the pitch
Size & Ranges:
Basic playing ranges for timpani:

\[
\begin{array}{cccc}
D & A & F & C \\
32" (30") & 29" (28") & 26" (25") & 23" (22\frac{1}{2}"")
\end{array}
\]

- The playing range is the possible range of pitches that a drum can produce with good tone
  - The middle of the range is the best sounding
- Typical drums from large to small are: 32" / 29" / 26" / 23"

Grips:
THREE TYPES:

- **FRENCH GRIP (THUMBS UP):**
  - Thumbs face up
  - Hold near the end of the shaft – find balance point
  - *Pivot point* should be between the thumb and the 1st joint of the index finger
  - Remaining fingers collapse lightly around the shaft of the stick
  - USED FOR GENERAL LIGHT PLAYING

*Figure 5.10. The French or thumbs up timpani grip.*
◆ **GERMAN GRIP:**
  - Matched grip – similar to snare drum (palms face down)
  - Hold near end of the shaft
  - USED FOR DARK SOUNDS AND STACCATO ARTICULATIONS (16\(^{TH}\) NOTES)

![German Timpani Grip](image)

◆ **AMERICAN GRIP:**
  - Mixture of French and German grips
  - Not recommended

**Stroke:**

◆ Think “UP” – Never down stroke or playing into the head!!!!

◆ **LEGATO STROKE**
  - Relax!!!!!!!
  - Finger stroke with added wrist and arm motion into the head
  - Uninhibited natural rebound of the mallet from the head
  - Use French Grip with mallets 6” apart

◆ **STACCATO STROKE**
  - “Lift Stroke”
  - More rigid motion in the wrist
  - Mallets close together – the closer the mallets the clearer and shorter the articulation will be
  - Use French Grip for 8\(^{th}\) notes & German Grip for 16\(^{th}\) notes

**Stickings:**

◆ Alternate stickings on the same drum
Rolls:

♦ USE SINGLE STROKE ROLLS – never double bounce
♦ The larger the drum – the slower your roll speed (like on a mallet instrument)
♦ Mallets should be spread 6” apart
♦ Louder rolls require faster speed
♦ Forearm should stay stationary – Use wrist motion

Notation:

♦ Timpani parts are always notated in bass clef

Muffling:

♦ Used to stop the ringing of a note into another note
♦ Place the little, ring, and middle fingers on the head to stop it from vibrating
♦ Should be used as often as possible

Glissandos:

♦ Sound-effect produced by striking or rolling on the drum while moving the pedal up or down
♦ Usually notated by the word gliss
HISTORY OF THE TIMPANI

NAKERS

The timpani developed from instruments called nakers during the medieval times. These were 6-10 inches in diameter and were usually played in pairs. They were used for marital purposes, dance music, and processional music in churches and they were always played by men. They were usually suspended at the waist or from the shoulders with a strap.

Early depictions of nakers

KETTLEDRUMS:

Around the 15th century the development of timpani enter Europe as cavalry drums. They were generally played on horseback and they were larger than nakers (diameter ranged between 24-18"). The kettledrums were associated with royalty and nobility. The drums were often skillfully decorated as well as the sticks sometime even with expensive jewels. The kettledrum player was held in high regard. He gained several privileges that common folk could only imagine. Because of the prestige, the art of kettledrum playing technique was highly guarded and passed down from one generation to another to keep within the family.
TIPANIS:
The orchestral timpani developed out of several important inventions. First the size became bigger in diameter and deeper. Tuning developments had a major impact. Tuning went from screw tensioning on each lug to the T-handle to mechanical and rotating drums to the pedals that we see today.

MALLETS:
Early mallets were generally made from wood or sometimes even ivory. They were very short compared to today’s average mallet and sometimes covered by woolen cloth.

HEADS:
Early timpani heads were made of reptile and water animals skins. Eventually they moved to skins of mammals such as rawhide. Skin heads were difficult to tune because they stretched easily and expanded and contracted at even the slightest change in weather. In 1957 plastic was invented. Soon after, heads were being manufactured out of plastic. Plastic heads offer a faster response and decay, more sound in the low frequencies, and a better consistency in tuning in respects to weather changes.
Fundamental Setup of the Timpani

- Be clearly able to see the timpani, music, and conductor at all times.
- An imaginary straight line of sight should exist between the conductor and the player which should also pass through the music stand and the center of the timpani setup.
- Drums should be placed in a semi-circle or wide arc close to each other but not touching.
- Adjust the drum configuration to the body, not the other way around.
- Pedals should be pointing in toward the player. Correct playing area (beating spot) can be played upon by rotating from the waist and lower back to each of the drums, not by radically shifting the feet.
- The optimum arm position for each drum is with the elbows out away from the body and slightly forward of the shoulder.
- Surface of drum heads should be located slightly below waist level.
- In the United States, it is common to place the smallest diameter drum of the setup to the far right and the largest drum to the far left.

Standard Timpani Setup

![Diagram of standard timpani setup with dimensions](image-url)
Standard Ranges and Sizes

The physical design of timpani has experienced its greatest growth during the past 150 years. Experimentation with pedal mechanisms, bowl design, structural support components, and head types have produced instruments which will produce optimum sound with full resonance and clarity. It is very important for the player to fully understand each instrument's pitch range in order to develop a tuning scheme for a particular piece of music.

Thirty years ago, the common sizes for timpani diameters were normally 30-28-25-23 inches, respectively. Today the industry standard is accepted as 32-29-26-23 inches. Conventional safe playing range of each size drum is the interval of a perfect fifth, with the fundamental pitches of each of the four drums spelling out a Bb Major triad in first inversion (D-F-Bb-D). If a 20” size piccolo timpani is utilized, its fundamental should be tuned to the pitch “F” extending the Bb Major chord. The exact ranges of each drum will be affected by the drum manufacturer, model, extended vs. non-extended collar, tuning mechanism, condition of the drum itself, and the head type.

Playing Area

Also called the beating spot, this is the area on the head which produces maximum resonance and clarity. The area of the head containing ideal beating spot should be identified when putting on the head. It should then be located in the area of the drum closest to the performer. This will allow the player to easily reach and maintain consistency of the playing areas. The exact placement of the mallets on the head depends upon a variety of factors, including size of the drum. The optimum playing area will produce the maximum amount of sound with a natural rebound. This area should be located approximately one-third (2 to 5 inches) in from the bearing edge of the drum toward the center. When moving between drums be certain to maintain consistency and accuracy when striking each beating spot. With careful listening and playing experience, one will learn how to make subtle variations in the basic playing area in order to shade the tone color and various articulations.

Playing Area Configuration

● = Left  ■ = Right

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STROKE AND GRIP—The development of these two elements are vital to good technique and tone production
• French Grip
  The thumbs are on top of the mallet shaft
• German Grip
  Similar to snare drum matched grip

Either grip can be used for appropriate situations; one is not “right” or “wrong.” French grip can be more conducive to legato playing, and German can be more conducive for staccato playing. However, you can achieve these styles with both grips.

THE UP STROKE
  This term can be misconstrued by performers.

You don’t actually “pull” the sound out of the drums, but this can be a helpful mental image. The goal is to achieve a full sound with a minimum of tension. It is important to remember that the mallet will rebound if we “let” it. This is in contrast to the down stroke where we don’t allow the stick to rebound past a specific point on snare drum) and the piston stroke (where we create an artificial rebound on keyboard instruments). Most of the work is done through the velocity of the stroke.

STROKE DEVELOPMENT
The stroke can be with fingers, wrists, or a combination of wrist, fingers (and arms to some extent).

Legato strokes—the wrists and fingers propel the mallet, which rebounds freely. Remember that velocity plays an important role. The arm may assist (but not govern) the stroke at louder dynamic levels.

Staccato strokes—More grip pressure can assist in achieving this stroke. This is similar to a down stroke on snare. The wrists are more in control here (as opposed to the legato stroke).

Roll strokes—The fingers do most of the work here, assisted by the wrists at louder dynamic levels. Working on each hand individually to develop speed and strength.

BEATING SPOT—1/3 of the way from the edge of the bowl to the center of the drum. The size of the drum determines the beating spot. The drums are not equidistant from the player. Especially when one is seated, the distance from the drum is vital to achieving the proper beating spots.
MUFLING TECHNIQUE—Use the back three fingers on the beating spot (not the thumb or index fingers)
One muffles for duration and articulation. Duration refers to rests, caesuras, and other similar in-
stances. Articulation refers to notes “bleeding” together. The volume and speed determine how
much we muffle. The slower and louder we play, the more we can (and should) muffle. The con-
verse is true (faster and softer=less muffling). Muffling should be done as quietly as possible; don’t
slap at the drums or drag your hands across the head.

STICKING CONCERNS
Alternate whenever possible. Sometimes the passage may require cross sticking or doubling. Cross
sticking can sometimes be avoided by shifting. Doubling can cause an unevenness in sound, but
may be required to facilitate movement between drums. Doubling between drums can be an effec-
tive way to achieve an even sound while facilitating good motion.

ROLLS
Rolls speed is determined by head tension and volume. A tighter head tension requires a faster roll
(and vice versa). An extremely loud roll requires a fast hand speed (this may cancel out the head
tension rule). One must practice accented rolls, sforzandos, and forte-piano rolls.

TUNING—Ear training is vital to good performance
The performer must be able to identify intervals. Singing will help develop this ability. Tune up to the
pitch whenever possible. Gauges are a good aid, but do not take the place of a good ear. When
playing a passage with tuning, one may need to play seated. Many players sit too low, which im-
pedes good technique. A swivel stool is preferable to a wooden one, as this fosters good mobility
between drums. Determine the range/tuning scheme for the timpani to assist speed in tuning. One
possible range is as follows (top notes):

32" - a  29" - c  26" - f  23" - a  20" - c (middle c)

The effective range of each drum is a perfect fifth, but one can often obtain more notes on each
drum (depending on the manufacturer, etc.).

SEATED VERSUS STANDING—The performer must determine when each is appropriate. The
amount of tuning may dictate this.

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mallets by Innovative Percussion.

Timpani FUNdamentals Sponsored by Yamaha Percussion
Snare Drum Technique

BEFORE YOU BEGIN TO PLAY:

- Always adjust the snare drum to your height!
  - Should be approximately at hipbone level.
  - Forearm should be parallel to the floor.
- Turn drum so that the snare release lever is directly in front of you. The snares on the bottom should run straight in front of you (going away from you).
- Adjust drum so that it lies flat (parallel to the ground)

STANCE:

- Stand tall.
- Feet should be shoulder-width apart with equal weight on both.
- Avoid tapping your foot while playing (internalize the pulse).
- RELAX!

PLAYING AREA:

- Slightly off-center (RECOMMENDED)
  - Gives a full tone with some resonance
- Direct center
  - Dry and muffled tone with the lowest fundamental sound.
- Edge
  - Thinnest tone
- It’s okay to play at the edge for softer section but to maintain the most consistent sound for all dynamics, try to stay just off-center.
GRIP:

Example 1: Areas of the snare drum stick

- **Matched Grip**: found to be the most consistent approach to total percussion education and performance.

![Figure 2.12. The grip, palm up.](image1)

![Figure 2.13. The grip in playing position.](image2)

- Fulcrum or Pivot Point
  - The point where you hold the stick between the index finger and the thumb.
  - Should be at the point of the stick where you get the greatest number of bounces.

- Hold stick freely at fulcrum, gently fold rest of fingers around stick
  - Last 3 fingers used in controlling the stick. NEVER HOLD ON TO THE STICK TIGHTLY WITH THE LAST THREE FINGERS. THEY ARE USED TO SUPPORT STICK AND NEVER TO GRIP STICK.
  - Thumb should be placed on the side of the stick.
  - Index finger should curl slightly around stick. DO NOT STICK ANY OF YOUR FINGERS OUT!

- Hand & arm position
  - Palms should face straight down (parallel to the floor)
  - Elbows should be relaxed at the side and even with the body.

- Sticks should meet at a ninety degree angle on the drum. (in playing position)

---


STROKE:
• **FREE REBOUND**
  o Allow stick to have a natural rebound.
  o Hands must be RELAXED and grip must be correct to achieve free rebound.
  o Creates most musical sound out of the drum and most fluid motion of the hands.
  o Try for consistency of sound from both hands
    ▪ Think of accenting your weak hand in order to get it to sound at the same volume level as your strong hand.

• Two Types of strokes:
  o Non-Buzzed:
    ▪ Movement straight up and down from the wrist (like bouncing a ball).
    ▪ NEVER SWIPE AT THE DRUM!
    ▪ Use lots of wrist and fingers (little to no arm should be used).
  o Buzzed (rolls):
    ▪ Uses more arm motion than a regular stroke.
    ▪ Stick should approach the drum from a parallel position.

• ALWAYS STRIVE TO GET GOOD SOUNDS OUT OF THE DRUM AND NOT A FORCED SOUND!
• Staccato Strokes
  o Use snappier wrist motion.

STICKING POLICIES:
• Straight System
  o Right-hand lead
    ▪ Right hand on strong beats
  o Alternation of hands

    \[ \text{Moderato } d = 120 \]

• Situational sticking
  o Based on CONSISTENCY of sound.
  o Allows for easier phrasing and musicality.
  o Helps maintain tempo.
  o Highly RECOMMENDED.

    \[ \text{Moderato } d = 120 \]
ROLLS:
- Two types:
  - Multiple Bounce
    - Used mostly for marching band.
    - Use only two bounces per hand
  - Buzzed roll (Crushed roll)
    - Used mostly for concert band
    - Multiple bounce – try to get as many bounces per hand as possible
- Each roll must have a base:

![Diagram of roll notations]

PHRASING:
- Always try to make music out of what you play.
- Find the moving line and see what you can do to phrase that line
  - Ex: 16th notes should possibly crescendo.
- Look at the example below. Example 2 is how this except was written, Example 3 is how this could be musically phrased. Longer stems indicate a louder dynamic level.

Example 2:

Allegro Scherzando \( \text{\textit{\small j = 94}} \)

Example 3:

Allegro Scherzando

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1 Picture from Gary Cook’s *Teaching Percussion*. New York: Schirmer Books, 1997, p. 54
Choosing the Right Pair of Sticks

**Wood:**
- Maple
  - Light Stick
  - Quick response
- Hickory
  - Most common type of wood for sticks
  - Durable
  - Heavier than Maple
  - Provides good tone
- Japanese Oak
  - Very Dense
  - Heavy
- Rosewood
  - Very Dense
  - Durable
  - Provides good tone
  - Expensive
- Synthetic

**Tips:**
- Round
  - Bright focused sound
- Barrel
  - Medium body tone
  - Broader focus
- Pointed or Triangle
  - Focused medium tone
- Tear drop
  - Full low tones
- Nylon
  - Bright tone
  - Durable

**Weight:**
The lighter the stick is, the thinner the tone will be. On the contrary, the heavier the stick the more body to the sound
Snare Drum
FUNdamentals
Robert McCormick &
Nick Petrella
Figure 2.1. The parts of a snare drum.
Matched Grip
1. Fulcrum between thumb and first finger on both hands. Thumb should be across from the second knuckle of the first finger.
2. The stick should be held through the palm of the hand, with all fingers remaining on the stick.
3. Palms should face down.
4. The flow of the stick should be straight back in the direction of the forearm, towards the elbow.
5. Tips in the center of the head.
6. Elbows relaxed and under the shoulders.

Traditional Grip
1. Right hand should follow tips listed above for matched grip.
2. Left hand palm facing to the side. (Like shaking someone’s hand)
3. Fulcrum is in the space at the bottom of the thumb, between the thumb and first finger.
4. Stick should rest on or before the first knuckle of the fourth finger.
5. The first two fingers loosely rest on the top of the stick.
6. The thumb should touch the first knuckle of the first finger.
7. Rotate the wrist as if turning a door knob for the correct motion.
8. 3rd and 4th fingers should always follow the stick.

Set Up
1. Stand up straight.
2. Drum should be approximately waist high.
3. Arms and elbows relaxed.
4. Find a comfortable distance from the drum.
5. Keep the sticks in the center of the drum.
Legato Stroke

1. Bounce stroke that has continuous motion. Each stroke returns to the height of the first stroke. Wrist motion with slight finger control.

Accent with a Rebound

1. A legato stroke $mf^{-}ff$ that rebounds to original height. Multiple accents in a row.
2. Usually used in passages without accents with the dynamic range cf $mf^{-}ff$.

Accents Without a Rebound

1. Legato stroke $mf^{-}ff$ that does not rebound. Accent that prepares for a rest or tap (unaccented note).
2. Wrist control with a slight squeeze from the fingers to keep the stick down after it has been played.

Taps (inner beats, unaccented notes)

1. A stroke that is played approximately 1" to 3" above the head.
2. The notes within an accent pattern that is not accented.
3. Mostly fingers with slight wrist motion.
4. May be utilized for $p-mp$ passages.

Upstrokes

1. Unaccented notes or taps that prepare for an accent.
2. Dynamic change from $p$ or $mp$ to $mf^{-}$ or $f$.
3. Wrist motion.
HOW TO PRACTICE SNARE DRUM

INTRODUCTION
Traditionally, most beginning drummers are taught a rudimental approach to the snare drum. This method of playing, though appropriate for certain rudimental-style solos and for drum corps and marching band, does not necessarily prepare the player to handle all of the musically demanding percussion parts in today’s compositions. Generally accepted and employed practices in snare drumming styles should be followed and taught regardless of one’s prior training, which is often over-balanced on the traditional and militaristic rudimental style.

The “right-hand lead” system of using the right hand on all strong pulses within a framework of four notes is usually employed by teachers and students alike. The “right-hand lead” system works because most people are right handed. By playing strong pulses with the right hand and the weak pulses with the left, natural and musical accents are achieved automatically, so to speak. This type of sticking is only applicable to the snare drum and, of course, students will ultimately strengthen and develop both hands through the use of technique studies.

EQUIPMENT
Basic instruments and related items needed include: a practice pad mounted on an adjustable stand, or a snare drum (with a Gladstone pad) on a stand, a music stand, a well-lighted and well-ventilated room in which to practice, a reliable metronome, general-purpose sticks such as Firth SD-1, a copy of Stick Control by George Lawrence Stone, and at least one other substantial book such as Modern School for Snare Drum by Morris Goldenberg.

BEFORE PRACTICE BEGINS
A number of factors must be considered before practice begins. Many players “put in” time without really knowing how to practice. To realize optimum value from practice time, the practice session must be directed toward specific goals. Furthermore, one should have both long and short range goals. You should have both “aural” and “visual” images in your mind of how a very fine player can perform. It is very important to hear excellent playing, both live and on recordings, so you will have some sense of direction to your practice. Ask yourself what your greatest weakness is at the moment. It could be the sound, facility, reading or simply the need to learn more new literature. Are there technical problems to overcome? How does the music you are working on now relate to these problems? With specific goals in mind, you will receive the most benefit from your practice.

MATCHED OR TRADITIONAL GRIP?
The position of the snare drum (or practice pad) is altered slightly when the player utilizes the matched grip. Since the grip for both sticks is the same as the right hand of the traditional method, there is no need to tilt the drum. The instrument should be parallel to the floor. The top of the drum should be a few inches below belt height.
With the matched grip, the muscular actions used in playing are the same in each hand, arm and wrist. This one factor alone will enable the player to progress more quickly and efficiently than with the traditional grip. Many of the problems encountered while teaching beginners can be traced to the somewhat unnatural left-hand portion of the traditional grip. This can result in excessive teaching and practice time being devoted to making corrections of the left hand. With the matched grip, special left-hand problems are almost eliminated.

Muscular transference between the different percussion instruments is another point in favor of the matched grip. If the basic areas of percussion (snare drum, timpani, mallet-keyboard, drumset, multiple, etc.) are played using a similar grip, the student will progress more quickly toward becoming a well-rounded percussionist.

The matched grip adapts very well to the drumset, especially the now popular melodic tom-tom setups, and to the increasingly difficult solo multiple percussion repertoire. The traditional grip evolved as a result of the snare drum being carried originally and exclusively on a sling. With the advent of newer devices designed to carry the marching drum “level,” there may be very little need for the traditional grip. Many drum corps and marching bands now use matched grip as a result of the newer carrying devices being available.

Inasmuch as today’s percussionist is often expected to play a wide variety of instruments (and play them very well!), the matched grip has tremendous advantage in versatility and flexibility when moving from one instrument to another. While the traditional grip is in no way obsolete, the matched grip is recommended for training the total percussionist and indeed serves as the consistent approach to percussion education and performance for many successful percussionists.

WHEN AND HOW LONG TO PRACTICE
Most musicians who plan to become professional players will practice at least four hours per day, perhaps even more while in college, conservatory or equivalent level of study. It is a good idea to practice as often as possible, the following minimum guidelines are recommended:

- Grade school/junior high
- High school
- College and beyond

45 minutes per day
1 hour per day
2 hours per day

It is not wise to suddenly embark on long and intense practice sessions. Rather, the preferred method would be to gradually increase the practice session by one-quarter to one-half hour each day until the desired number of hours have been reached.
Some musicians prefer to practice early in the day when they are fresh and fully awake, others prefer to practice late in the day or night when other pressing matters have been set aside and there may be fewer distractions. Another very real consideration may be times when practice facilities and instruments are available, especially in a university or conservatory.

HOW AND WHAT TO PRACTICE
The ideal practice session must consist of a warm-up period, technical work, solo and ensemble literature, sight reading and perhaps finally, a “cool down” period to relax the mind and muscles before practice ends for the day.

Creating a good practice attitude is very important. The practice session should be viewed with enthusiasm, pleasure and eagerness to achieve, rather than a chore or boring or drudgery. A positive attitude has direct influence on the levels of concentration, care and patience in a practice session.

Concentration involves the use of your complete mind. Do not think of other things while you are practicing. Take care that you are indeed playing the correct notes, rhythms, dynamics, etc. Always check and double check to make sure that mistakes are not creeping into your work. Often it is more difficult to “un-learn” mistakes that have been practiced for a period of time. Students often learn pieces badly because they are impatient. Passages should not be played any faster than they can be played well. Instead of trying to learn a long piece all at once, divide it into sections, learning one at a time. Do not hesitate to count aloud. Finally, as it sometimes happens, do not become discouraged if you cannot play something as well today as you could yesterday.

USE OF THE METRONOME
The original purpose of the metronome was only to provide a reference with which tempos could be accurately measured and specified. There are various schools of thought among musicians concerning use of the metronome. Practicing with a metronome has been criticized by some musicians as “making you too mechanical.” Still others maintain that only through discipline will freedom evolve. To acquire concert-performance control of rhythm, with all its nuances, a knowledge of the subtle use of metronome technique is quite necessary.

The two primary uses of the metronome are: to set an absolute tempo (number of beats per minute) and to act as a guide in learning complex rhythms. Because percussionists are expected to have flawless rhythm and the ability to hold steady tempos, use of the metronome is absolutely essential. The value of using a metronome when practicing cannot be overly emphasized. Many performance problems related to “rushing” or “dragging” would be virtually eliminated by using a metronome for all practice sessions.
Concert Snare Drum, Toms and Bass Drum-Tuning and Adjustment

BY TOM FREER

Concert percussion instruments should be approached with a much different point of view than those of the Drum Corp. It is important to adjust and tune your concert equipment with this in mind due to the completely different acoustic and dynamic demands made on them. In general, your “concert” percussion instruments will have a much wider dynamic range demanded of them, and must be tuned accordingly so that the listener and player can accurately produce the full sonic spectrum that these instruments are capable of. Symphonic band music and orchestral music requires percussion instruments that can provide the extremes of subtlety, finesse and power, and it is with these goals in mind that we would like to offer these tips on tuning these instruments so that you can utilize their full potential.

BASIC SNARE DRUM TUNING AND ADJUSTMENT

Please follow these simple and basic instructions for tuning and adjusting your Pearl snare drum. In order for you to get and maintain the best possible sound out of your instrument, it will be important to save this sheet so that you can “tune up” the drum as the heads become broken in, and replace heads when necessary.

YOU WILL NEED THE FOLLOWING TOOLS TO PROCEED:

1. DRUM KEY 2. RULER

STEP ONE:

Loosen the top head completely. Place the drum on a flat surface and unscrew all the tension rods so that there is no tension on the top head. You don’t need to take them out, just loosen them all the way. Next, begin to tighten down each rod just until they touch the counter hoop (or rim) WITHOUT PULLING IT DOWN. Just screw the tension rod down until it just touches. Go across the drum and do the same to the opposite tension rod and repeat, always working across the drum head in opposites, this keeps the head very even. Next, when all the tension rods are seated and just touching the counter hoop, take your ruler and beginning with the tension rod directly beside the strainer, measure the distance from underneath the counter hoop to the top of the lug. Repeat this process with the lug directly across the drum and repeat until all measurements are the same. Remember we are not concerned with how tight the head is right now, just how even the tension is. Now that the head is evenly tensioned, bring the top head up to pitch. For a 6.5” snare drum, the pitches G - Bb are what you should listen for (Ab - B for a 5” drum). Using your drum key, tighten each tension rod ONE EVEN HALF TURN away from working in opposites across the drum until you come near the pitch. Use a piano or keyboard percussion instrument to help find your pitch. Make sure your snares and muffler are not on when listening to the pitch of the top head. Once you are satisfied with the top head pitch, move on to step two below to adjust the bottom head.

STEP TWO:

Turn the drum over and follow the exact same procedures described in step one above to evenly tension the bottom head. The bottom head will require more tension than the top head in the end, and will be at a higher pitch. Don’t be alarmed by wrinkles that might appear on the bottom head, be patient and tension all the rods evenly as in step one. Once all the rods are evenly tensioned and the measurements are all the same by checking with the ruler, begin tightening the rods in EVEN HALF TURNS always working
across the drum in opposites. Bring the pitch of the bottom head up until it sounds a perfect fourth to a perfect fifth higher than the top head. This means if your top head sounds like the note A, then the bottom head should sound like D or E above that. This is a little hard to hear sometimes, and you need to do this in a very quiet room with no distractions. You can hear it best if you place the drum on your stand and lightly tap the top head near the rim and then the bottom head also near the rim in order to hear the interval relationship and the note you are looking for. Again, use a piano or keyboard percussion instrument as your guide and you can't go wrong!

**FINAL STEP - FINE TUNING**
Fine tuning the top head will help the drum ring longer and sound better. Simply tap the head very near the rim and very softly right in front of each tension rod. Listen for exactly the same pitch at each station. If one spot sounds very much higher or lower than the other, make a small adjustment with your drum key. Remember not to over adjust, turn the rod only one quarter turn in either direction and then LISTEN again. Turn on your snare strainer and readjust your snare tension if necessary. Make sure they are responding at all dynamic levels. At this point you may also want to adjust your snare muffler to make the top head sound a little drier if needed.

Remember to keep this manual and your snare drum key handy at all times, so that you can readjust your drum whenever you need to as the heads get broken in over the first few months. If you memorize these simple steps, you will become an expert snare drum tuner and have the best sounding drum around!

**CONCERT TOMS**
A few simple things apply whether you have a set of two, four, six or eight toms. Begin from a standpoint that your concert instruments are not be related to your marching band instruments, i.e.: don’t try to imitate the sounds you go for on the field. This generally means tuning things to a lower fundamental pitch which will ring longer and produce a fuller more projecting and long ringing sound.

**DON’T OVERTIGHTEN!**
Start with good heads, medium thin weight and coated. The idea is to get a warm ringing sound without sounding like the concert toms just came from a drum set. Think of imitating the sound of natural calf skin which is used in most professional orchestras. When mounting heads, start by measuring under the rim of the drum just above each lug to where the lug meets the female threaded insert. This will be an excellent starting point so that the head is balanced from the start. Simply bring the head up in pitch until there is a low pitched clear ringing sound before you try to fine tune at all. At this point don’t worry with the pitch relationship between each tom, just get each individual tom to its LOWEST RINGING TONE.

Once you are satisfied that each drum is at it’s lowest ringing tone, tap the head directly in front of each tension rod close to the rim to check that the head is relatively “clear” or that the pitch of each lug matches fairly closely. If the sound is very poor and you followed instructions closely, DON’T BLAME THE DRUM, try another head.

Your next step depending on how many toms you have is to try to achieve an interval difference of roughly a minor or major third between each drum. It is best to start with the lowest tom first and tensioning upward from that tom. Before you begin, you may wish to bring the lowest toms pitch up SLIGHTLY from where you found the LOWEST RINGING TONE so that the pitch is not too low and unfocussed. This method will produce a set of concert toms that sound full, resonant and projecting with a good pitch differential between each drum.

When using a large number of toms the sizes become very gradual therefore you may wish to utilize a smaller interval difference between each drum in order to maintain the drums sonic integrity and not have the highest toms too tight and choked.

Muting your concert toms is generally not recommended because it is simple enough for the player to either play dead center for a dryer more percussive sound or towards the rim for a more ringing sound. If muting is desired, it is recommended to utilize Pearl’s OM-1 Outside Mufflers which provide minimal and accurate muting without ruining resonance as things like tape will.

**BASS DRUM**
The most important thing to remember is that this is a BASS drum. Not a tenor or soprano drum. It should be the BASS voice of the percussion section. With that in mind, first make sure that there is no muting material attached to the head or inside the drum itself. The object again, as with the concert toms,
is to bring the instrument to its lowest free ringing “singing” pitch level. We will deal with how to control ring at the end. Assuming the drum is free of any muting materials, start with good heads that are thicker coated and NOT thin uncoated plastic.

Follow the same procedures as above, measuring from underneath the hoop to where the tension rod meets the female threaded insert. With large instruments like this, it is best to do this work with the drum flat in a suspended stand or placed on a table in a flat position. Measure in opposite from one side of the drum to the other just to keep things balanced. Repeat this process on the opposite head keeping track of exactly how far the rods are pulled down. Use a ruler and keep a pen handy so that you can match this distance on the opposite head. Next put the drum in it’s playing position and listen to the drum striking the head about 6-8 inches from the dead center. It should sound very low and “flappy” at this point. This being the case, begin by turning every T-rod on the drum one full clockwise turn keeping all tension rods “square” so that none are in a half position. Listen again. The drum should start to ring long and very, very low. Experiment and bring the heads up further if needed, EVENLY, so that all tension rods move up or down in equal amounts. If these instructions are followed closely, both heads will ring evenly producing the most possible low end sound from the drum. When muting is required for marches or just short notes in general, it is best to produce this from the player. Have your percussionist try this technique for better control of the bass drum:

For a right handed player, keep your left arm stretched across the drum with the fingers touching the opposite head. Place the LEFT leg against the playing head (not the right as many do) to varying degrees for the desired amount of muffling. It is important to provide the player with some sort of foot rest. If your bass drum stand does not have one, a simple plastic milk crate can suffice or any wooden box 8-12” tall depending on the height of the drum. Using the left leg for muffling will be twice as effective as the right leg because of the increased amount of contact from the entire thigh. Most players who use the right leg are only able to get the knee to touch the head, which only raises the pitch of the head and generally does not muffle enough when needed. Again as with the concert toms, for a dryer more percussive sound, the player can also move toward the center in combination with the left leg for muffling (avoiding playing dead center).
HOW TO REPLACE AND ADJUST SNARES
by Gene Okamoto

1) Thread the cord through the holes of the snares and wrap them around the bolts of the butt as shown in the photo below.

2) Turn the tension knob on the throwoff clockwise until it stops - the slider will be all the way up.

3) Turn the tension knob on the throwoff approximately 5 turns counterclockwise. This assures that the slider has enough "headroom" when adjusting the snare tension later.

4) Wrap the cord around the keybolts of the throwoff as shown below. It's best if the throwoff is in the OFF position.

5) SLOWLY turn the lever to the ON position.
Note:
If the lever meets resistance before it is fully ON, DON'T FORCE IT! Loosen the tension knob until the lever clicks to the ON position easily and a crisp snare sound is achieved. If the tension knob runs out of threads before this happens, reset the cords in the clamps of the throwoff or butt to give the snares more slack.

If the snares are too loose when the lever is ON, tighten the tension knob until a crisp snare sound is achieved. If the tension knob tops-out before this happens, reset the cords in the clamps of the throwoff or butt to take up slack on the snares.

6) With the throwoff ON, the snares should be in the CENTER OF THE DRUM. If it is not, reset the cords at the clamps of the strainer or butt or both until the snares are centered.

![Image of snares set correctly](image)

Note: The snares above are pretty straight and even. This is what you want for clean snare sound without buzzing.

7) In many cases, however, the snares will be zigzagged rather than straight as in the photo below.

![Image of zigzagged snares](image)

Uneven snares cause buzz and rattle.

This is caused by the cords pulling unevenly as shown below.

![Image of cords pulled unevenly](image)

This side is pulled tighter.

8) You can balance the pull of the cords two ways:

a) Loosen the bolts and balance the cords as shown below. If necessary, do this to both ends of the snares.
b) Balance the cords per the sequence below.

- Take a small screwdriver and lift the cord on the side that is longer (in this case, the left side) as shown in the photo below.

- Drag the cord to the short side (in this case, the right side) as shown below.

- Repeat until the snares are even as shown below. Both ends of the snares may need straightening.
Focus On Performance

Percussion Instrument Repair

Introduction to the Snare Drum

Mark Bonfoey

Over a period of time percussionists acquire a rather extensive battery of equipment: drums, mallet instruments, timpani, various stands and sticks — and the list continually grows. This equipment is not usually acquired all at once, but accumulates instead by the piece. In purchasing instruments, one should strive to obtain the best possible instruments for the money invested. This will help insure longer equipment life and less maintenance to keep them in good shape. The acquisition of equipment is also an investment making the performer more desirable to contractors. The average contractor will much more readily hire a player who has his own equipment over one to whom the contractor must continually supply equipment. Comparing music to other professions, would you take your car to a mechanic who had to constantly borrow tools to get his work done? The obvious answer is no. The investment in equipment is the commitment a professional must make. After the decision has been made to invest in some quality equipment, an additional commitment towards maintaining and repairing this investment is essential. And to make sure that the equipment is always available for performance and that it sounds its best, a regular schedule of maintenance needs to be established. Consider the following situations:

* Even the finest made snare drum can develop a rattle. What could the player look for in eliminating this?

* Vibraphones have several moving and working parts besides the motor. What possible solution could be given to the vibraphone player whose instrument doesn’t completely stop the sound when the pedal is up?

* Even though timpani are mechanically more complex instruments than, for example, a cymbal, there are often obvious points to check when extraneous sounds are present during performance. How does the performer eliminate a buzz and how could it be prevented?

* What causes cracks in cymbals and when one does occur what options does the performer have in saving the instrument?

This new column will deal with percussion equipment from the viewpoint of maintenance and repair. Discussion of instruments, stands, and accessories, and possible solutions to the types of maintenance matters that all performers encounter on a regular basis will be offered. Obviously, there is not one exclusive answer to every problem. I would like to solicit ideas, questions, comments, or solutions that you have developed and that work well for you. On a regular basis these will be shared with the membership. This first column of “Equipment Repair and Maintenance” will focus on the instrument that is fundamental to every percussionist’s personal battery of equipment: the snare drum.

Because the snare drum is one of the most common percussion instruments, it can be found everywhere, from the concert stage to the jazz halls, to the marching field. The drum itself takes on various characteristics depending on the performance environment in which it is used. Each instrument has the following common parts that characterize a typical snare drum (see Figure 1):

- Shell
- Batter Head
- Snare Head
- Top and Bottom Hoop
- Tension Rods
- Lugs
- Snares (Wire, Gut, or Combinations)
- Snare Throw-Off
- Butt Plate
- Air Hole

Even though the snare drum may seem simplistic in construction, many sections of it will need maintenance, repair, or eventual replacement.

Replacing Plastic Heads
The batter head (top head) needs to be replaced more often than any other part of the drum. When the head no longer has the ability to keep itself in tune while being played, or has lost its original shape, it is time for replacement. Over a period of time the batter head will start acquiring dents and will stretch from continuous playing. Snare heads (bottom heads) will not need to be replaced as frequently as the batter head, but this will be necessary on occasion as a result of wear or damage.

When replacing heads, it is necessary to know the size of the drum head you will
BUDA
Fred Buda, an alumnus of the Herb Pomeroy
Big Band, is a member of the Boston Pops.

EPSTEIN
Frank Epstein is a member of the Boston
Symphony Orchestra and a founding member
of the contemporary ensemble, Collage.

FIRTH
Vic Firth is solo timpanist of the
Boston Symphony Orchestra.

MOSES
Bob Moses, jazz percussionist, has performed
and recorded with Pat Metheny, Lee Konitz,
and Jaco Pastorius.

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need. Most snare drums are 14" but it is a
good idea to measure the drum if you are not
sure. Always measure the drum from the lip
of the shell straight across to the other side
(see Figure 2). Do not include the flesh-hoop
in the measurement. The following proce-
dure outlines head replacement:

1) Remove the old head. Keep all lugs and
washers in a central location.
2) Clean debris from the inner shell.
3) Clean rim lightly with steel wool. Wipe
rim with soft cloth to remove additional
residue.

4) Place the new head on the shell and
secure the counter-hoop over the head.
5) Replace all lugs and tighten by hand
until all lugs are secure. (Since it is
extremely important that the head is
tightened evenly at each point of the rim,
try to be exact in the number of rotations
each lug is turned.)
6) Using a drum key, begin tightening
each lug in an even, symmetrical pattern
(see Figure 3).
7) Keep one hand on the lug tightened
first to make certain that your work
pattern remains consistent.
8) Tighten the lugs only 1/4 turn at a time
to insure even tension. Measurements
may be made from under the counterhoop
to the top of each lug casing. If, after
measurement, you find that one lug has
been tensioned unevenly, adjust it accord-
ingly.
9) Normally the bottom head on a snare
drum will be tightened slightly more that
the batter head. This is because the snare
head is thinner and it needs to be tighter
in order to react quickly with the snares.

Following the mounting of the new head and
initial tuning, the drum needs to be played
and then retightened slightly. This is because
the plastic head will tend to stretch a small
amount when it is first tightened and played.

Notes
1 For more extensive information on this subject,
refer to Mark B. Bongiovi, Percussion Maintenance and
Repair, published by Columbia Pictures Publications.
I. ROLL RUDIMENTS

A. SINGLE STROKE ROLL RUDIMENTS

1. Single Stroke Roll *

2. Single Stroke Four

3. Single Stroke Seven

B. MULTIPLE BOUNCE ROLL RUDIMENTS

4. Multiple Bounce Roll

5. Triple Stroke Roll

C. DOUBLE STROKE OPEN ROLL RUDIMENTS

6. Double Stroke Open Roll *

7. Five Stroke Roll *

8. Six Stroke Roll

9. Seven Stroke Roll *

10. Nine Stroke Roll *

11. Ten Stroke Roll *

12. Eleven Stroke Roll *

13. Thirteen Stroke Roll *

14. Fifteen Stroke Roll *

15. Seventeen Stroke Roll

II. DIDDLE RUDIMENTS

16. Single Paradiddle *

17. Double Paradiddle *

18. Triple Paradiddle

19. Single Paradiddle-diddle

* These rudiments are also included in the original Standard 26 American Drum Rudiments.

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III. FLAM RUDIMENTS

20. Flam *

21. Flam Accent *

22. Flam Tap *

23. Flamcuer *

24. Flam Paradiddle *

25. Single Flammed Mill

26. Flam Paradiddle-diddle *

27. Pataflafla

28. Swiss Army Triplet

29. Inverted Flam Tap

30. Flam Drag

IV. DRAG RUDIMENTS

31. Drag *

32. Single Drag Tap *

33. Double Drag Tap *

34. Lesson 25 *

35. Single Dragdiddle

36. Drag Paradiddle #1 *

37. Drag Paradiddle #2 *

38. Single Ratamacue *

39. Double Ratamacue *

40. Triple Ratamacue *
STANCE & BODY POSITION:

Feet: Shoulder width apart. Movement is from side to side. NEVER CROSS FEET WHILE MOVING. Weight should be evenly distributed on both feet.

Adjust mallet height: (As needed) Adjust sides or put blocks underneath wheels.

Elbows: Relaxed at the side (not held away from the body or pressed against the body)

Hands: Positioned about 2” above the bars

Body: Always move your body and center it in front of your playing area

GRIP:

- Similar to snare grip
- Held near end of shaft with about 1-2” showing (depends on length of mallets)
- Grip the shaft between the thumb and first joint of the index finger, wrap the fingers around loosely.
- Palms down

Example 1: 2 mallet grip

STROKE:

Piston Stroke (Up-Down Stroke):
- Bending only the wrist
  o Like waving goodbye or bouncing a ball
- Player should try to return the mallet head to the full stroke position
  o Think of the mallet head as a ball bouncing
- Alternate stickings when possible
- Attack, length and timbre are a result of the velocity (speed) of the stroke
  o Lighter attacks - slower strokes
  o Heavier attacks – faster strokes
  o Staccato strokes – snappy and firm wrist strokes

PLAYING AREA:
- On natural keys always play in the center of the bar
- On accidental keys try to play in the center of the bar first, or on the extreme edge second (only on marimba and xylophone)

ROLLS:
- Always single stroke rolls
- Speed
  o Slower on lower end of instrument, faster on upper octaves

CARE:
- NEVER set or store anything on top of the instrument
- Use only approved mallets on instruments (if you are unsure of what mallets are acceptable to use, please ask)
- Always cover the instruments when not in use
BRIEF HISTORY THE MARIMBA/XYLOPHONE

Early xylophones can be traced back to Southeast Asia as early as 2000 B.C. Early European xylophones where comprised of 4 rows in the shape of a triangle that were played from near to far rather than left to right.

The marimba's history can be directly traced to Africa where the early instrument comprised of a 1-3 slabs of wood placed on the players leg or two logs and sometimes played over pit resonators. Early resonators were made of gourds. The migration of the marimba traveled with slave trade to South America where the instrument was popularized and advanced physically, similar to what we see today. The marimba is now Guatemala's national instrument.

Example 2: Early South African Marimba

\[\text{Example 2: Early South African Marimba}\]
Example 3: Rock Marimba

Example 4: Mexican Marimba

IMPORTANT PLAYERS

Keiko Abe – Marimba


Leigh Howard Stevens – Marimba
George Hamilton Green – Xylophone
Gary Burton – Vibraphone
Bob Becker – Xylophone
David Friedman – Vibraphone
Terry Gibbs – Vibraphone
Michael Josef Guzikov – Xylophone
David Samuals – Vibraphone
Julie Spencer – Marimba
Clair Omar Musser – Marimba
Zeferino Nandyapa – Marimba
Gordon Peters – Marimba
Christopher Deane – Marimba
Dean Gronemeire – Marimba
Evely Glennie – Marimba
Keyboard Percussion Ranges and Mallets

Bells or Glockenspiel

- Steel bars (sometimes aluminum)
- Transposing: Sounds two octaves higher than written page
- Usually no resonators
- Mallets: brass, lexan, polyball, hard rubber

![Concert Bell Range]

Xylophone

- Rosewood or Synthetic Bars
- Transposing: Sounds one octave higher than written page
- Usually has resonators
- Mallets: lexan, polyball, rubber

![Xylophone Range]
Marimba

Rosewood or Synthetic Bars

Non-Transposing: Sounds where written

Has resonators

Common Range: 4 1/3 octave. Some instruments go to a low F, E or C.

Mallets: yarn, soft to medium rubber

Vibraphone

Metal Aluminum Bars

Non-Transposing: Sounds where written

Has resonators with paddles or fans run by a motor to create a vibrato effect

Has a pedal for dampening

Mallets: yarn, cord, soft to medium rubber
Chimes/Tubular Bells

Steel tubes

Transposing: Sounds one octave higher than written page

Has a pedal for dampening

Mallets: rawhide or acrylic hammers

Written Chime Range
Sounds 1 Octave Higher
Advancement on any instrument can be directly linked to a good foundation of basic skills. For this fundamental clinic we will cover basic information regarding grip, stroke, playing area, mallet selection, and sight reading. With thorough, disciplined practice and good beginning skills you should have a successful and enjoyable experience with the keyboard percussion instruments!

THE INSTRUMENTS

**Orchestra Bells or Glockenspiel**
- Range: 2 1/2 Octaves
- Transposition: Sounds two octaves higher than written pitch
- Material: Steel bars (sometimes aluminum)
- Mallets: Brass, lexan, polyball, hard rubber

**Chimes or Tubular Bells**
- Range: 1 1/2 Octaves
- Transposition: Nontransposing
- Material: Steel tubes; damper pedal
- Mallets: Rawhide or acrylic hammer

**Marimba**
- Range: 4 1/3 Octaves; also 3 1/2, 4, 4 1/2, and 5 octave models
- Transposition: Nontransposing
- Material: Rosewood or synthetic bars
- Mallets: Yarn, cord, soft to medium rubber

**Vibraphone**
- Range: 3 Octaves
- Transposition: Nontransposing
- Material: Aluminum bars; damper pedal, motor-driven oscillating flaps in resonators create a vibrato effect
- Mallets: Cord
**Fundamentals**

**Xylophone**
- Range: 3 1/2 Octaves
- Transposition: Sounds one octave higher than written pitch
- Material: Rosewood or synthetic bars
- Mallets: Lexan, polyball, hard rubber

**Fundamentals**

**Grip:**

The two mallet grip is basically the same as the matched snare drum grip. The mallet is held between the thumb and first finger with the other fingers gently wrapped around the mallet for support. Palms are parallel to the floor and the end of the mallet should extend from the ‘fatty’ part of the hand.

Two types of four-mallet grips are the cross grip and the independent grip. The Burton and Traditional grips are popular cross grips, and the Musser and Stevens grips are widely used independent style grips.

**Body Placement:**

Height of the instrument is important for ease and accuracy of playing. When possible, adjust the instrument height so that forearms are a little less than perpendicular to the keyboard. Many instruments are now height adjustable. Blocks of wood or PVC piping can also be used.

Avoid standing so close that the elbows are behind the mid-line of the body. This can cause stress to the shoulder area and inhibit flexibility. Movement should be in a side stepping fashion. Lunging or shifting weight from one leg to the other is also appropriate. Good posture is necessary for free movement of the arms. Be careful not to slouch or let the head hang down or forward.

**Stroke:**

A full stroke with basically one motion from the wrist is generally recommended. The mallet should start in an up position, strike the bar, and immediately return to the starting position. It can be helpful to think of the motion used when dribbling a basketball or playing with a yo-yo.
Playing Area:

Playing all bars just slightly off center produces the strongest fundamental pitch and provides consistency of sound between manuals.

Practicing:

Schedule practice time at regular intervals so that it becomes a part of your daily routine. Organize the time carefully! For example; before school starts schedule 10 minutes of technical exercises, during study hall spend 20 minutes on solo music, then after school work another 20 minutes on ensemble music and 10 minutes on sight reading.
Essential Elements for Four-Mallet Playing
by Julia Gaines

The building blocks of the pyramid directed to improve Accuracy & Efficiency all apply to four-mallet playing. The following are additional comments as related to four-mallet technique.

STANCE/BODY POSITION

- Body parallel to instrument (larger range needs to be balanced)
- Solid torso – do not turn to the left or right
- Align elbows with shoulders and hips

GRIP

- Independent/Stevens (popular in the US)
- Traditional/Cross (popular in Europe/Japan)
- Burton (popular in jazz styles)

Stroke types:
1. Double Vertical
2. Single Independent
3. Single Alternating
4. Double Lateral

Top 3 errors made with Stevens grip:
1. Curled index finger
2. Thumb not centered on mallet prior to interval shift
3. Middle finger not supporting end of shaft of mallet

STROKE

- Avoid any lift prior to stroke and any bouncing after stroke
- Start stroke at the correct height for the current dynamic level and stop stroke at the correct height of the next dynamic level
- Fifteen minutes of proper stroke technique twice a day will be more helpful to a beginner than one solid hour of practice until strength develops in the small muscles of the hands

Resource
Anyone wanting further information on the Stevens four-mallet grip should read “Method of Movement for Marimba” by Leigh Howard Stevens which is published by KP3. The first part of this book has a wonderful narrative about each stroke type and proper position of every finger in this grip.
LITERATURE SUGGESTIONS TO BUILD A&E FOR THE FOUR-MALLET PLAYER

Methods
A. Method of Movement by Leigh Howard Stevens
B. Fundamental Method for Mallets by Mitchell Peters

Beginning Solo Literature (in sequence)
Marimba
  Prayer by Richard Gipson
  Sea Refractions by Mitchell Peters
  Hymn for an Angelic Child by Gus Burghdorf
  Yellow After the Rain by Mitchell Peters
  Rain Dance by Alice Gomez
  Memories of the Seashore by Keiko Abe
  Michi by Keiko Abe

Vibraphone
  Solo Jazz Vibraphone Etudes by Arthur Lipner
  Summer Song by Alice Henry
  Tranquility by Murray Houllif
  Trilogy by Tim Huesgen
  Music of the Day by Bill Molenhof

For additional questions, feel free to contact:
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  University of Missouri-Columbia
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INTRODUCTION TO MARIMBA TECHNIQUE by Kevin Bobo and Jon Metzger

Where to Strike the bar:
- Center = one strike zone
- Off-center = three strike zones

How to move from one note to the next:
- Get centered over the bar and drop the mallet
- Keep mallets constantly moving from one note to the next

How to produce a good solid tone:
- Make sure that initially stick heights are relatively high (initially)
- Make sure that stroke primarily comes from the wrist
- Make sure to use gravity in this process (Do not to force the stroke)

Exercises:
- Scales
- Arpeggios
- Sticking and strength development exercises

BASIC 4-MALLET TECHNIQUE

Grips:
- Traditional
- Burton
- Stevens

Basic motions:
- Horizontal
- Vertical
- Shifting
- Combinations

Exercises:
- 8 on a mallet, single independent strokes
- Basic double vertical exercises
- Scales with stationary and moving sticks
- Single alternating, double lateral and triple stroke exercises
SCALES

We will be testing on all major scales this semester. The order in which we will complete them will be in the circle of fifths (starting at C and moving to the right). You will be graded not only on playing the right notes, but on mallet technique that we have talked about (including movement, grip, stroke, etc.).
Scale Template

Play all scales in the form above. Once again, I will be looking for correct notes as well as fundamental techniques that we have discussed. The entire exercise should be played as forte unless otherwise asked.
CYMBALS

Crash Cymbals (Piatti- It.)

CONSTRUCTION:
♦ Made from a mixture of copper, tin, and silver.
♦ Bell size effects volume and resonance
♦ Thickness determines sound quality.
♦ Good pair of cymbals will sound a 2\textsuperscript{nd} or 3\textsuperscript{rd} apart

CARE:
♦ NEVER DROP THE CYMBALS! Dents will effect the overall sound.
♦ NEVER set anything on top of the cymbals
♦ Do not use harsh abrasives to polish or clean.

TYPES:
♦ French
  ▪ Light in tone
  ▪ Produces the highest tones
  ▪ Fast responding
  ▪ Best for marches
♦ Viennese
  ▪ General Purpose
  ▪ Heavier than French cymbals
♦ Germanic
  ▪ Dark Sounding
  ▪ Thickest cymbal
  ▪ Slowest response

SIZES:
♦ 18” is the most common
♦ 14”-22” (use depends on music)
STRAPS AND PADS

- NEVER USE PADS FOR CONCERT PLAYING!
  - The pads dampen the sound
- Below is the guide for tying the cymbals straps:

1
2
3
4
5
6

GRIP:

- NEVER PUT HAND THROUGH THE STRAP!
- Grasp strap between the thumb and index finger (index finger should be pressing firmly against the cymbal bell) Remaining fingers grasp the strap and rest against the bell
PLAYING TECHNIQUE:
- Prep the cymbal before playing
  - Tap cymbals on legs to start them vibrating
- Angle
  - Plates should strike as a flam and slightly off center (see diagram below)
  - If plates hit exactly together it will create an air pocket possibly inverting the cymbals
- Cymbals should be placed at a 45 degree angle to the floor
  - Your dominate hand should be on top
- Cymbals should come straight up and straight down
  - NO SWIPING MOTION!!!!!!!!!!!!!!!!!!!!
- Let gravity do the work!
  - Do not force the plates together
- A relaxed technique will produce a fuller sound
- Allow the cymbals to separate immediately after impact.

DAMPENING/MUFFLING:
- Bring the edges of the cymbal firmly up against the chest, midriff, or upper arm muscles.
- Avoid buttons and zippers!

SET-UP:
- ALWAYS USE A PADDED TRAP TABLE OR CYMBAL STAND to place cymbals on when not in use. Make sure they are secure so they won’t get knocked around.
- Crash Cymbals should always be next to the bass drum
Suspended Cymbals

SET-UP:

♦ Stand
  - Should have:
    ◦ Metal and felt washer(s)
    ◦ Rubber post insulator
    ◦ Wing nut
      ○ Do not tighten the wing nut all the way. Allow the cymbal to move. You may choose not to use the felt
        and wing nut on top.
    ◦ Height should be just below the chest area
    ◦ **THE CYMBAL SHOULD ALWAYS LIE FLAT!!!!!!!** It should never be tilted to allow the cymbal to vibrate freely.

MALLETS:

♦ Use yarn or cord mallets.
  - Avoid using timpani mallets! This will ruin you timpani mallets and the only reason timpani mallets are specified is because many years ago that was the only soft mallets available. Timpani mallets absorb the high sounds in the cymbal.
  - Sticks (when specified)

PLAYING TECHNIQUE:

♦ Rolls
  - Mallets should be placed at the extreme edge of the cymbal
  - Mallets should be positioned at three o’clock and nine o’clock
  - Speed:
    ◦ Do not roll fast. Only fast enough to allow the cymbal to vibrate freely.
  - Release of the roll:
    ◦ **DO NOT DOWN STROKE THE RELEASE!**

♦ Single Notes
  - Always use two mallets
    ◦ Allows the entire cymbal to vibrate
  - Hit at extreme edge at three and nine o’clock
  - Do not down stroke (THINK UP!)
CYMBALS

General Playing Tips

1. Hold the instrument between the player and the conductor.
2. Choose cymbals that work well for the dynamic and tempo of the piece. Generally small cymbals are softer and large cymbals are louder. Cymbals also come in a variety of weights, which affect the timbre and dynamic of the instrument.
3. Your posture must be relaxed, yet sturdy. Place one foot slightly in front of the other.
4. When playing cymbals in a concert setting, grip the whole strap in your hand. In a marching setting you may place your hands through the straps. The concert grip minimizes the contact between your hand and the instrument.

Crash Technique

1. Hold cymbals at approximately a 45-degree angle.
2. Let the top cymbal drop at an angle with one edge striking slightly before the other. (This is similar to a flam.)
3. Allow the cymbals to “sizzle” against each other.
4. Minimize contact between your body and the cymbals during a crash.
5. Cymbals should make contact slightly off center. Lining up the edges exactly produces an unwanted vacuum of air.
6. Release the cymbals by pulling them apart.

Dampening

1. Touch the cymbals to your chest or abdomen to dampen the vibrations.
2. Written notation can sometimes be misleading. Listen to the ensemble to determine when you should dampen.
Cymbals
aka: piatti, becken

Selection
Cymbals are instruments of great coloristic expression. While they can add a brilliance of sound unlike any other instrument, they must be played with care and musicality. It is imperative that cymbals be chosen for sound and manageability. For younger students, a pair of 17" medium-light cymbals is recommended. For high school players, addition of medium 19" cymbals is appropriate. For maximum resonance only soft leather straps should be used! The addition of leather pads can also aid in cymbal handling. Wooden handles or soft “furry” pads are not acceptable in the concert hall!

Grip
Cymbals should be held in a relaxed, yet controllable manner. The wrists should never be inserted through the strap; rather, the strap should be held between the thumb and pointer finger, with the other fingers supporting the pointer. Imagine turning a key in a car door, ending with the thumb on top. This is exactly the way the cymbal strap is held.

Stroke
Hold both cymbals together with the top edge at eye level. Slowly separate the cymbals, keeping them closer for soft crashes and farther apart for loud crashes. Using a flam motion, bring the cymbals together and instantly pull them apart. Very soft crashes are played by lightly “scraping” the cymbals together. Many student have trouble playing soft crashes and resort to touching the edges at a perpendicular angle. This is not acceptable!

Muffling
Cymbals commonly have to be muffled, especially for short accent notes. This is accomplished by bringing the cymbals into the chest area after striking together.
Cymbals are among the most dramatic and magical of all percussion instruments. Each cymbal has a unique musical personality governed by many parameters including types of metal from which the cymbal is made, the process used to make it, and the type of playing and care that the cymbal has been exposed to. Cymbals are also among the most misunderstood of percussion instruments. Poor cymbal playing can be more musically destructive to a performance than poor performing on almost any other percussion instrument. Over the years I have heard some otherwise solid and intelligent players give poor performances on the cymbals both technically and interpretively. Perhaps this is due to the amount of strength that it takes to simply hold the instruments. It is also quite possibly due to certain concepts of showmanship over tone quality that has been cultivated in many of the modern marching and field percussion organizations. Many percussionists imitate what they have seen other players do with cymbals seemingly without listening to the results they get. Players imitate a slicing motion that frequently results in a thin sound, or at worst, an air pocket sound. Often players try to force the sound from a pair of cymbals killing many of the necessary overtones. In my view, the art of cymbal playing is achieved through the development of motion and balance along with a clear concept of what a beautiful cymbal sound really is.

**Basic rules of crash cymbal performance:**

1. Stagger the feet to allow freer body movement. (see diagram #1)
2. Hold the pair of cymbals at about a 45 degree angle to the floor. (see diagram #2)
3. Check the dynamic needed so that the cymbals will be in the correct position to one another. (see diagram #3) Louder crashes usually require the cymbals to be staggered, whereas softer crashes or notes require the cymbals’ edges to line up. (diagram #4)
4. Touch as little of the cymbal bell as possible. At the moment of the crash it is best to be touching no part of the cymbal, only the strap. (see diagram #5).

A good cymbal sound consists of a union of two parts, a good attack and a good sustain after the attack. Do the following to help develop a good sense of what a cymbal crash should ultimately sound like.
The attack:

1. Hold the cymbals in the position for a medium dynamic crash. (diagram #6) Using only the dropping motion of the wrist (not full arm), allow the top cymbal to drop down onto the surface of the bottom cymbal and stay. (diagram #7) The sound should be short in duration but very rich and uninhibited. If any air is present in the sound, change the position of the upper cymbal until no air is trapped between the cymbals.

2. Now begin moving the lower cymbal so that the attack is sustained a little longer as the cymbals vibrate against each other. The important concept is that the player is not hitting the cymbals together forcibly, rather the cymbals are coming together because of their own weight.

3. To complete this aspect of attack development, try to produce a motion (some use a circular motion, both cymbals moving counter clockwise to the player) that allows the cymbals to collide. This is where the balance and motion are combined. Avoid any kind of slicing motion!

The Sustain:
Suspend both cymbals from a boom stand or goose neck stand (by the cymbal strap, not by using a metal stand through the cymbal's center hole) and strike both cymbals with a good quality hard vibraphone mallet. The sustained tone quality of the cymbals produced this way should be very close to what is heard when the cymbals are crashed together minus the sound of the attack.

Soft Crashes:
Consistent soft cymbal notes can be very difficult. Using gravity can be helpful. Try resting the elbow of the arm holding the bottom cymbal against the players side and move the bottom cymbal up to strike the top cymbal. A common practice in high school ensembles is to tap the tips of the plates together rather than the entire circumference of the plates. This results in a thin and unsatisfactory sound.
Dampening:
To dampen cymbals after a crash, draw the cymbals into the tightened muscles of the abdomen or chest. Two types of dampening should be developed.

1. *Staccato*: Cymbals are deadened completely immediately after striking.

2. *Legato*: Cymbals are dampened more gradually, which gives the effect of a more natural decay.

Suspended Cymbal
Suspended cymbals are usually thinner than hand held crash cymbals. A richer and more professional sound is always achieved by hanging the cymbal by a strap or bungee cord from a goose neck or boom stand (diagram #7). Stands that hold the cymbal by providing a center post that comes up through the center hole of the cymbal gives the player more control. Crashes of varying dynamics are done equally as often using a yarn mallet or wooden stick. Rolls are almost always done with the yarn mallets however. (Timpani sticks should rarely, if ever, be used on suspended cymbal parts even if called for by the composer. The sound is not satisfying and it damages the mallet. Substitute yarn mallets whenever possible).
CRASH CYMBALS by Kristen Shiner McGuire
Piatti • Becken • Cymbales • a2

DO
• strike cymbals together beginning at an angle so one set of edges hits before the other (mf/f).
• strike directly on top of one another.
• stop sound (dampen) against chest or tightened stomach muscles.
• create a full sound with many overtones.
• Keep cymbals close together for keeping a steady beat (e.g., when playing a march).

DON'T
• slice downward!
• start with cymbals shoulder width apart—you'll be late!
• start with cymbals parallel for general playing—they might suction together!
• create a thin sound with few overtones or one with "air pocket" sounds.
• avoid practicing—find your own good sound!

EXERCISES

\[
\begin{align*}
\frac{3}{4} & \quad \frac{3}{4} & \quad \frac{3}{4} \\
& \quad & \quad \\
& \quad & \quad \\
& \quad & \quad \\
& \quad & \quad \\
& \quad & \quad \\
& \quad & \quad \\
& \quad & \quad \\
\end{align*}
\]

\[
\begin{align*}
\frac{4}{4} & \quad \frac{3}{4} & \quad \frac{3}{4} \\
\text{mf-f} \\
\frac{2}{4} & \quad \frac{2}{4} & \quad \frac{2}{4} \\
p
\end{align*}
\]

1. The strap is placed across the palm, just behind the second joint of the index finger.
2. The fingers curl around the strap and make a fist.
3. The flat of the thumb is placed against the pad. This pressing action of the thumb adds greatly to the performer's control of the instruments.
SUSPENDED CYMBAL by Kristen Shiner McGuire

- Roll on opposite edges with soft yarn mallets (NOT FELT TIMPANI MALLETS!).
- For crash sound, strike on edge of cymbal with an old snare drum stick. (Save your good sticks for the snare drum.)
- Stop sound with fingers around edge (for short notes and cut-offs).
- l.v. means “let vibrate” or ring.
- To imitate jazz beat on hi-hat, dampen cymbal with opposite hand on beats 2 and 4:

\[
\begin{align*}
\text{Jazz Beat} & \quad \frac{3}{4} \quad + \quad o \quad o \quad o \quad o \quad + \quad o \\
& \quad o = \text{let ring} \\
& \quad + = \text{dampen with opposite hand}
\end{align*}
\]

Suspended Cymbal—Snare Drum Stick

\[
\begin{align*}
\text{Suspended Cymbal—Yarn Mallets} & \quad \frac{3}{4} \quad \frac{3}{4} \quad \frac{3}{4} \quad \frac{3}{4} \\
& \quad p \quad f \quad f \quad f \quad \text{mf} \\
& \quad \text{(dampen)}
\end{align*}
\]

Suspended Cymbal—Sticks

\[
\begin{align*}
\text{mf} & \quad \frac{3}{4} \quad \frac{3}{4} \quad \frac{3}{4} \quad \frac{3}{4} \\
& \quad p \quad f \quad f \quad f \quad \text{i.v.}
\end{align*}
\]
ORCHESTRAL TECHNIQUES OF THE
STANDARD PERCUSSION INSTRUMENTS

by
Anthony Cirone

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by Cirone Publications, 3512 Glenwood Avenue, Redwood City,
California 94062.

CYMBALS

Cymbals - Piatti - Becken - Crash Cymbals - 2 Cymbals

Above are the various names used when the composer would
like two cymbals to be struck together and not a single
suspended cymbal struck with a stick. When a percussion part
states the word "cymbal", generally it refers to two cymbals. A
suspended cymbal should only be used when it is specifically
stated.

The size of the cymbals are also very important to the
performer and the work. A composer will not specify what size
cymbals to use. Generally a pair of 18" crash cymbals and 14"
-crash cymbals will handle most of the repertoire; however, other
sizes would be beneficial to certain passages.

Crash cymbals should always have a strap to grasp - wooden
handles should not be used. The performer should grasp the
strap with his thumb and forefinger and the remaining fingers
should close against the strap. The hand does not go through the
strap.

The basic technique used for loud cymbal crashes is as
follows:

The right and left hand grasp the straps as earlier described.
The right hand is held above the left hand.
The cymbals should be held at an angle to each other.
The right cymbal then strikes the left cymbal at an angle.
Both hands should travel in the opposite direction (the right
hand down and the left hand up).

The cymbals will actually hit at two different times, the
bottom portion meeting first and the top portion immediately
after. They must be so close, however, that only one sound is
heard. This will avoid the possibility of trapping air inside the
cymbals and producing an unwanted sound.

After the cymbals are struck, they should be held up so as to
sustain the sound.

To produce a very short cymbal crash, the cymbals are struck
as before and immediately pulled to the chest or shoulder to
muffle the sound.

The written note value does not necessarily determine how
long the sound should sustain. Some composers are very careful
about this and others are not. Listening to the music is always
the best solution to this problem. The cymbal's sound should
never cover up other music; the sound should last in relation to
the accompanying chord.

The technique for producing any rhythmic passage, such as a
steady march tempo, is different from a single crash since much
less sound is required and more frequent strokes are necessary.
This technique requires the left hand to remain stationary while
the right hand produces the strokes, always in the same
direction, either up or down. The right cymbal should meet the
left cymbal with a vertical motion and about one inch below the
top edge. Never should one motion be up and the second
motion down as employed by marching band cymbal players.
Each crash should be as similar as possible and the same motion
will tend to help produce this.

Soft cymbal crashes should always be played with small
cymbals. The 14" crash cymbals will be adequate for most
repertoire, however, a pair of 12" crash cymbals may be easier to
handle for very delicate passages.

Since there is no danger of producing an air pocket with the
little force required to produce a soft sound, the cymbals do not
have to meet at an angle. The prime consideration here is that
only one sound is made when the cymbals meet. The entire edge
around both cymbals should meet at one time. Never should a
soft crash be produced with one part of an edge hitting another
part.

If a part is marked, "suspended cymbal", and the composer
does not indicate what type of stick to use, the performer
should use a soft mallet. For soft strokes, the cymbal will sound
best when struck near the edge. A roll or tremolo should also be
played with soft sticks. The roll is produced with single strokes;
the more sound needed, the faster the strokes should be. The
sticks may be either together in one spot or on opposite ends of
the cymbal.

A composer will often indicate wood stick or snare drum
sticks to be used. If the part calls for loud and short notes, the
performer should strike the edge of the cymbal on an angle with
the butt end of the stick.

In any rhythmic passage, the performer should play
approximately half way from the center in the same manner
that he would play snare drum. One stick should be used
whenever possible.

If a roll is written for wood sticks, the roll should be similar
to the snare drum roll, that is, many bounces on each stick and
not a single stroke roll.

Composers will ask for the suspended cymbal to be struck or
rubbed with many different types of mallets and objects such as
- wire brush, coin, metal beater, needle, etc.
THE ANATOMY OF A CYMBAL

As Manager of Sales and Selection for my company for over seventeen years, I have worked very closely with many, many drummers. During this time, it has come to my attention that drummers do not always fully understand the anatomy of a cymbal - the purpose of each particular section of a cymbal and how that section affects the sound. Therefore, in order to help drummers better understand the structure and nomenclature of a cymbal, I would like to take this opportunity to explain, in detail, the anatomy of a cymbal.

RINGING QUALITIES

OVERTONE CONTROL
Big Cup...full sound...maximum overtones
Small Cup...light sound...minimum overtones
No Cup...little or no overtones

PITCH
Flat Taper...dark sound...low overtones
Medium Taper...medium pitch...medium overtones
High Taper...ping qualities...high overtones

STRIKING AREA
Bell...clean, cutting sound
Middle...riding area
Edge...crashing area

RESPONSE - SUSTAINING QUALITIES
thin (light)...short sustain...fast attack
thick (heavy)...long sustain...slow response

VOLUME
small sizes...soft to medium loud
large sizes...medium to loud

NOMENCLATURE OF A CYMBAL

After observing the anatomy of a cymbal, you can see that each and every part of the cymbal plays an important role in determining how the cymbal will perform. The pitch, response and the duration of ring are contingent upon the weight, size, shape and bell of each cymbal. Listed below are a few points to keep in mind when selecting cymbals:

BELL (CUP SIZE): The larger the cup, the more ring and/or overtones projected. The smaller the cup, the tighter the sound and the fewer the overtones. No cup at all will eliminate 90% of the ringing qualities and overtones. Most all Crash Cymbals are designed with large cups so that they will have a full body sound with a fast reaction. Ride Cymbals are all constructed with various cup sizes. Light weight Ride Cymbals with big cups can serve as Crash or Crash Ride Cymbals and will produce a lot of ringing qualities. Ride Cymbals that are used strictly for riding purposes can have medium size cups, mini cups or virtually no cups at all.

BOW (TAPER): This area will determine the pitch of a cymbal. Cymbals with a flat construction throughout the bow area will sound low and dark in pitch while cymbals with a high curvature will be much higher in pitch and will have more ping qualities.

WEIGHT: The weight of a cymbal will determine the response of the cymbal. Thin through medium thin cymbals will react very quickly but will not have long sustaining qualities. Heavy cymbals will be slow in reacting but will sustain longer than thin through medium thin cymbals. The weight of a cymbal also determines and is a relative factor in the pitch of a cymbal - thin cymbals have a low to medium pitch, medium cymbals have a medium to high pitch and heavy cymbals have a high pitch.

SIZE: The size of a cymbal will determine the amount of volume it will project. Small cymbals have a minimum amount of projection while larger cymbals will reach a maximum volume. The size of cymbal also determines and is a relative factor in the response of cymbal. Small cymbals, unless they are heavy in weight, will react very quickly and will also decay very quickly, however, large cymbals need more vibration to peak and, as a result, react very slowly.

In order for a drummer to determine what type of cymbal will be best suited for his style of music, and before he selects and purchases new cymbals, he should take into consideration the above noted facts, as well as the following questions:

1. What will this cymbal be used for - riding, crash, crashing/riding, choke effect, mallet effect, special effect and so forth?
2. What type of music is involved - rock, jazz/rock, jazz, big band, funk, etc.
3. What size is the band (in relation to the size cymbals used)?

After all of this has been taken into consideration, a drummer can intelligently determine exactly what type and size cymbal he requires. Our company has unceasingly studied and evaluated technical advancements in the formulation, processing and fabrication of metals and have turned their attention to satisfying the requirements of percussionists by producing a wide range of sizes and weights - there is a cymbal to suit each drummer's personal taste and style.

DRUMCHARTS MAGAZINE

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SPECIAL EFFECTS ON CRASH CYMBALS

Composers are constantly searching for new colors, and they have scored for a great variety of cymbal sounds. The percussionist should be acquainted with all these special sounds, and master the techniques for producing them.

The TWO PLATE ROLL is executed in the following manner:

1. Inaudibly place the cymbals together. They should be positioned a little off center (illus. below), otherwise an airlock may result in the execution of the roll.

2. Keeping the cymbals loosely in contact with each other, move them both in a circular path, as shown by the arrows in the illustration.

3. At the end of the note value, slide the cymbals apart.

The size of the circles described depends on the dynamic level. The speed, or "intensity", of the circular motion is based on musical considerations. Usually it is done quite fast, except, perhaps, at soft dynamic levels.

Zoltan Kodaly made an interesting use of the two plate roll in his Hary Janos Suite. A roll is immediately preceded by a regular two plate crash (following example). The roll is begun while the cymbals are still ringing from the crash.

The SWISH, or "Zischen", is very delicate color, and is usually scored at a soft dynamic level. It is performed by placing the edge of the right cymbal on the inside face of the left cymbal, near the bell, and sliding it upward across the grooves of the left cymbal (illus. I below). The duration (or dynamic level) of the sound can be increased by starting the edge of the right cymbal at the bottom of the left cymbal and moving it upward and around its inside face (illus. II).
Ordinarily, the swish is started before the printed note, and is timed so that the cymbals separate at the very beginning (ictus) of the note value. For example, if the part is notated thus:

\[
\begin{array}{c}
\frac{4}{\text{p}} \\
\text{\textit{\textless p}}
\end{array}
\]

it is usually played something like this:

\[
\begin{array}{c}
\frac{4}{\text{\textit{\textless p}}}
\end{array}
\]

The FORTE-PIANO CRASH is seldom seen in the symphonic repertory, but it is quite effective if the orchestration is imaginative. It is played by clashing the cymbals in the normal manner, but then immediately muffling one of the cymbals, letting the other ring. The effect is a prominent clash with a subdued after-ring.

The HI-HAT or CHOKE EFFECT is actually an instrument substitute, because the purpose is to imitate as closely as possible, with crash cymbals, the sound of the dance drummer’s hi-hat cymbals.

To obtain a tight "chick" sound the cymbals are silently placed together, in a horizontal position, with the edges against the player’s midriff. The cymbals are then parted, except where they touch the midriff. They are then clapped together, as in clapping one’s hands.
TYPICAL PHRASES

1. $\begin{array}{c}
   4 \\
   4 \\
   \hline
   \end{array}$
   $\frac{4}{4}$

2. $\begin{array}{c}
   4 \\
   4 \\
   \hline
   3 \\
   \hline
   \end{array}$
   $\frac{4}{4}$

3. $\begin{array}{c}
   4 \\
   4 \\
   \hline
   \end{array}$
   $\frac{4}{4}$

4. $\begin{array}{c}
   4 \\
   4 \\
   \hline
   \end{array}$
   $\frac{4}{4}$

5. $\begin{array}{c}
   4 \\
   4 \\
   \hline
   \end{array}$
   $\frac{4}{4}$

6. $\begin{array}{c}
   4 \\
   4 \\
   \hline
   \end{array}$
   $\frac{4}{4}$

7. $\begin{array}{c}
   4 \\
   4 \\
   \hline
   \end{array}$
   $\frac{4}{4}$

8. $\begin{array}{c}
   4 \\
   4 \\
   \hline
   \end{array}$
   $\frac{4}{4}$

9. $\begin{array}{c}
   4 \\
   4 \\
   \hline
   \end{array}$
   $\frac{4}{4}$

10. $\begin{array}{c}
    4 \\
    4 \\
    \hline
    \end{array}$
    $\frac{4}{4}$

NB: EXPERIMENT — add accents, vary speeds, $<+>$, $p+mf+f$
## CYMBAL TEST SHEET

**TEST#** __________  **NAME:** __________________________

**TECHNIQUE:**

1  2  3  4  5  6  7  8  9  10
  11  12  13  14  15

**SOUND:**

1  2  3  4  5  6  7  8  9  10
  11  12  13  14  15

**RHYTHM:**

1  2  3  4  5  6  7  8  9  10

**DYNAMICS:**

1  2  3  4  5  6  7  8  9  10

**TOTAL** __________ /50
The story of cymbals is one of the most fascinating of all musical instrument stories. What makes their story so different is the fact that in this modern day and age, their manufacture is still cloaked in a Middle Eastern mystery which dates back to an alchemist's discovery in the year 1623.

This was the beginning of modern cymbals as we have come to know them. Cymbals, of course, were being made in various sizes and shapes long before 1623 and were in fact one of the earliest of autophonic instruments, first appearing during the Bronze Age (2500-1800 B.C.) presumably in the Middle East. They were principally used in the religious rites of a cult which worshiped Cybeles, the Goddess of Fertility. As the influence of this cult spread Westward to Greece, Rome and Egypt, the use of cymbals went along with it. Cymbals have been found in early Egyptian tombs as well as in the ruins of Pompeii. They are mentioned many times in the Bible, both in the New and Old Testaments, for the early Hebrews used cymbals in their religious ceremonies. Later, the Eastern Christian Churches used them and some Eastern Christian sects still use cymbals today in their rites.

The story of how cymbals came to be used in secular Western music, however, begins with their use in Turkey by the famous Janizary bands. The Janizaries were an elite corps of the Turkish Army (formed in the 14th century A.D.) which marched into battle behind the stirring music of a band composed of woodwinds (mainly flutes and double-reed instruments) and percussion. Three kinds of percussion instruments were used in these bands which together created an effect which later was often imitated by the Europeans. These instruments were the bass drum, triangle and cymbals. The most well known of these early appearances in Western music is Haydn's Symphony No. 100 (Military), in which the Janizary effect was incorporated into the second and the last movements. The premiere performance of s work in London was an immediate sensation. The effect was subsequently used in Mozart's Overture to The Abduction From the Seraglio, and in the finale of the Symphony No. 9 (Choral), of Beethoven, to mention a few of the better known examples.

Thus were the cymbals introduced into the symphonic literature, being constantly elevated in their status by such composers as Berlioz, Wagner, Tschaikowsky, Rimsky-Korsakoff, Ravel and Bartok.

But what did an alchemist's discovery in 1623 have to do with all this?

The alchemist's name was Avedis and the city in which his discovery occurred was Constantinople. What he discovered was a method whereby he could alloy copper, tin, silver and other elements into a metal (considered to be a form of bronze) which when crafted into cymbals, gave these instruments an intrinsic quality which has never been surpassed by any other process.

Avedis became so famous for his cymbals that he was called Zildjian, or Cymbalsmith, by his contemporaries. To assure his customers, who in those days were the Armenian Church and the Turkish Military (the Janizaries), that they were getting the genuine article, he adopted the custom of placing his signature, Avedis Zildjian, indelibly on each cymbal he produced.

This same custom is still observed today by the current generation of Zildjians, using the same secret process, which verbally passed on to the eldest male in each generation, to manufacture their cymbals. The Avedis Zildjian Company of North Quincy, Massachusetts, is the only manufacturer in the world today still making cymbals from this same process.

While the basic materials and formula have not changed over the years, the manufacturing process has been modernized in those few steps where such modernization would not adversely affect the quality of the finished prod-
uct. In fact, some of the steps now used have actually enhanced the cymbal making art to a point where in spite of the greatly increased output of the Zildjian plant today compared to their predecessors in Turkey, a greater percentage of their finished products meet the extremely high standards that the Zildjians have set for themselves than in the days when the only Zildjian cymbals were being manufactured in Turkey. Many of today's outstanding artists on the cymbals actually prefer the present day products to those formerly made in Turkey.

Much of the specific manufacturing process is still secret but the following basic steps are known to be followed:

1. The alloy is personally prepared by one of the current generation of Zildjians (father Avedis or sons Armand or Robert) behind locked doors, using electronically heated smelting furnaces.

2. The metal is cast into small discs, which look like very thick pancakes, after which they are allowed to cool.

3. The discs are heated in annealing ovens and are put through a rolling mill. This step may be repeated as many as 25 times depending on the diameter and thickness desired.

4. The now thin but very wavy and buckled disc is flattened out by a large hammer and has a hole punched into its center, after which it is machine trimmed to a perfect circle. The cup is then formed.

5. The flat, cupped disc is now hammered at least 3 times for as long as 90 minutes each time, to form the graceful bows which are so characteristic of the Zildjian cymbal. The disc has now been formed into a perfectly shaped cymbal.

6. In the next step the plates are vertically clamped to a high speed lathe and the shallow striations are cut into its surface using a very sharp, tempered-steel cutting tool which is attached to a long sturdy handle. Since these cutting tools are wielded by hand, no two cymbals ever have exactly the same appearance.

7. After a period of aging, the cymbals are tested, graded and when required, paired. The final step taken at the plant is to place the finished cymbal's edge into an automatic stamping machine which places the Zildjian trademark permanently upon the finished product.

It has long been my contention that the manufacturing process does not end with the preceding step. It only ends as far as the manufacturer is concerned. As in the case of most musical instruments, cymbals also sound better with use. Invariably, cymbals that are being used sound even better than those which have been subjected to prolonged periods of idleness, or those that have not as yet been put into regular use.

It is believed that in the process of being played in an autophonic manner, the tempering process of the metal is continued, and as the cymbals are used over a period of time the tone produced is enhanced still further.

Therefore, it is reasonable to expect that new cymbals that sound good upon purchase will sound even better upon being "played-in."

HAB 8
The Bass Drum
Gran Cassa • Grosse Trommel • Grosse Caisse
by Kristen Shiner McGuire

I. Tuning
   A. Sound should be low “boom” with no specific pitch
   B. Tune resonating (ringing) head slightly higher than batter (hitting) head.
   C. Make sure the pitch of the head is the same at each T handle (place hand on center of head and tap at each handle).
   D. Check for “extra-musical” sounds like rattles (often a loose part that may be tightened).

II. Set Up
   A. For suspended bass drum, tilt slightly for general playing; lay flat for long rolled sections.

   General

   Rolls (long sections)

   B. Make sure “stops” (brakes) are on wheels before playing or you’ll be chasing the drum across the floor!

III. Playing areas
   A. General—half way between edge and center
   B. Drier sound for short notes/accents—Center
   C. Rolling—towards edge, on opposite sides (2 beaters)
      —near edge with double-ended beater

   Soft tremolos, special effects
   All general playing
   Secco playing, “cannon-shots”

   (Distance from center to edge divided in thirds)
IV. Playing Techniques/Musicality

A. **Stroke** comes from wrist and arm; PULL sound out of the drum.

B. For steady pulse with shorter note values (e.g., keeping the beat for a march), place few fingers of non-playing hand on head while other hand plays. (This is called MUFFLING.)

C. **For longer note values**, strike halfway between edge and center and let ring for full note value. NOTE: In some cases, written bass drum note values do not match those of corresponding parts in low brass (for example) playing the same musical line. In this case, play same note values as lower brass.

Example: Written Bass Drum part:

\[
\begin{array}{cccccc}
\frac{4}{4} & | & | & | & & \\
\hline
& | & | & | & & \\
\end{array}
\]

Lower brass part:

\[
\begin{array}{cccccccccc}
\frac{4}{4} & | & | & | & & \\
\hline
& | & | & | & & \\
\end{array}
\]

D. **Dampening**—to completely stop the sound, place one hand on the resonating head and one knee on the batter head.

V. Mallets

A. Use mallets specifically for bass drum (**not** timpani mallets, for example).

B. If possible, use a pair of matched beaters for rolling.

VI. Exercises

*Bass Drum—medium beaters*

\[
\begin{array}{cccccccccccc}
\frac{4}{4} & | & | & | & & \\
\hline
& | & | & | & & \\
\hline
& | & | & | & & \\
\end{array}
\]

*Bass Drum—hard beater*

\[
\begin{array}{cccccccccccc}
\frac{5}{4} & | & | & | & & \\
\hline
& | & | & | & & \\
\end{array}
\]
BASS DRUM
aka: gran cassa, grosse trommel, grosse caisse

Tuning
The bass drum is the lowest sounding, non-pitched member of the drum family. It should sound noticeably lower than any other instrument. Think of it as a non-pitched extension of the timpani. Tune the resonating (ringing) head slightly higher than batter (striking) head. Check for loose tension rods and any other "rattles."

Playing Area
General—halfway between edge and center.
Staccato—in center.
Legato—near edge.

Stroke
Pull sound out of drum! Use wrist AND arm motion with upstroke. Marches use short stokes near center using mainly wrist. Rolls use 2 mallets spread apart rolling slowly using wrist only!

Muffling
Use the right knee and left hand. For very short strokes leave knee on head while striking. (Lefties use left knee/right hand.) Do not dampen the concert bass drum with tape on the head or any muffling item placed inside the shell. Remember, the concert bass drum should sound very low and resonant!

Instrument Size
Bass drums are available in many different sizes. It is important to choose a drum that is proportionally suitable for the player. For younger students, a 28" diameter drum is suitable. For older players, a 32"–36" diameter drum works best.
Properly Tuning A Concert Bass Drum

BY CHRIS DEVINEY

“How complicated can it be? Tighten the lugs until the head is tight enough to play on, right?”
“What’s the difference between a plastic head or a calf head?” “How tight is ‘tight enough’?” These are some simple questions that might come to mind when tuning a concert bass drum. Here are some ideas that can help clarify these and other questions about this often over-looked instrument. After all, a bass drum is the backbone of rhythmical support in any orchestra or wind ensemble. Could your “backbone” use an adjustment?

First let’s assume a few things before you begin to tune a bass drum:
A. Both “playing” head and “resonant” head are off of the drum.
B. Bass drum is turned horizontally to let gravity help with “seating” the head.
C. While both heads are off, go ahead and tighten all nuts on the inside of the shell. (This will hopefully eliminate easy to fix rattles ahead of time before you hear them after the heads are on.)
D. Ideally both heads should be calfskin, if not, synthetic can be substituted.

Tune The Playing Head First
1. With the drum turned horizontally, finger tighten each tension rod shaft (not the “T” handle head) with thumb and index finger until natural tension occurs, then turn “T” handle head to the nearest point parallel to the counter hoop.
2. Every turn from here on should only be in halves (180 degrees) or quarters (90 degrees) and executed in opposite pairs at the same time. (Ex. On a 12-lug drum, #’s 1 and 7 should be turned together at the same time; on a 16-lug drum, #’s 1 and 9 should be turned together at the same time) This is to insure even tension all around the drum. Yes, it takes a little longer, traveling more times around the circumference of the drum, but this will produce an even and consistent sound in the long run.
3. Continue tightening in this manner until impact side is at “playing tension.” This varies from player to player and even from drum to drum (affected by diameter, depth, humidity and even type of head). Ideally the impact side should have some “give” to it. One way of measuring this “give” is as follows: Place both thumbs next to each other on the counter hoop with the remaining eight fingers extended and touching the head. By pressing into the head with the fingers, it should flex anywhere from at least a 1/8” to a 1/2” inward. Any less than 1/8” of flex will tend to make the individual strokes of a 2-mallet roll audible, while single-note attacks may sound too harsh. Contrarily, any more flex than 1/4” will tend to make a 2-mallet roll sound loose and flabby, while single-note attacks may seem to lack fullness or body. Tighten or loosen to achieve this “flex”.

Next Tune The Resonant Head
1. Now that the impact head is properly tuned, the resonant side can be tuned. Follow in order the above instructions (#1,2&3). While tightening in #3, play single strokes on the impact head listening for any noticeable pitch. Continue tightening using only quarter turns (90 degrees) until you hear a very low distinct fundamental pitch. This should sound like a low “hum”. At this point, loosen! Using only quarter turns all around, until the fundamental pitch is not noticeable. This is very important to utilize the drum’s maximum resonance.

Drum Is Properly Tuned, Now What...

Depending on whether the heads are plastic or calfskin, they will adjust daily (more noticeably with calfskin due to humidity fluctuations). Adjustments from here on need to be done to both heads equally.
Example #1: Impact side sounded flabby and needed to be tightened a 1/4 turn (90 degrees); tighten the resonant side a 1/4 turn also.
Example #2: Impact side sounded tight with a very audible pitch and needed to be loosened a 1/2 turn (180 degrees); loosen the resonant side a 1/2 turn also. This “equilibrium” is important to maintain. I also recommend “seating” the head every time before playing to truly determine if it needs any adjustment. To do this, place your open palm in the direct center of each head, pressing into it with firm but short bursts. This may produce some cracking or popping sounds affirming the point of this process. Playing 6-8” either above or below the center, whether with a pair of rollers or with a single mallet, should now produce the most consistent and fully resonant sound the drum possesses.
PLAYING BASS DRUM AND CYMBALS TOGETHER

Some composers, such as Gustav Mahler, occasionally score for the bass drum and cymbals to be played by one performer. In order to accomplish this it is necessary to have a special cymbal holder which attaches to the bass drum (following illus.).

The major problem in playing these instruments in this manner is damping all three instruments quickly, quietly and completely where necessary.

Damping is accomplished by:

1. drawing the left hand cymbal up firmly against the chest or ribcage.
2. grabbing the captive cymbal with the right hand.
3. pressing the right knee against the head of the drum.

Following are crash and suspended cymbal exercises, duets with bass drum, an exercise for bass drum and cymbals together, and excerpts from the symphonic repertory.
TRIANGLE

General Playing Tips

1. Hold the instrument in the sight line between player and conductor.
2. Use a proper clip. The triangle should be suspended by a thin, strong material. Fishing line works well. Make two loops of line for safety.
3. In general, allow the triangle to ring. Listen to the ensemble to determine dampening not marked in the music.
4. Aim to produce a sound with many overtones instead of a single pitch.
5. Choose the best technique based on tempo and dynamics.

Technique for playing with one hand:
Single notes, simple rhythmic passages, and slow tempos

1. Strike the triangle at a 45-degree angle to produce many overtones. Slightly off center on the bottom works well.
2. Use graduated beaters to help produce overtones.
3. Choose different sizes of triangles and beaters to achieve many different tone colors and dynamic levels.
4. Smaller instruments are generally softer and larger instruments are generally louder.
5. Hold the instrument in a way that allows you to dampen the triangle with the hand holding the clip.
Technique for playing with two hands: Intricate rhythmic passages and fast tempos

1. Suspended the triangle on a music stand with one or two clips.
2. Play the passage with two beaters.
3. Try to achieve a consistent sound with both hands.

Triangle suspended with one clip.  Triangle suspended with two clips.

Rolls

1. Louder rolls may be executed at the bottom right corner.
2. Angle the beater to produce a full sound during loud rolls.
3. Softer rolls may be executed at the top of the triangle.

Loud rolls  Soft rolls

PASIC 2003 ACCESSORIES FUNDAMENTALS BY THE CAIXA TRIO
ABOUT THE TRIANGLE

English         Triangle
German          der Triangel
Italian         il triangolo
French          le triangle
Spanish         el triangulo

History

The triangle is rarely viewed as a musical instrument that requires serious practice and study. Nothing could be farther from the truth. The tonal texture of a triangle is that of a special nature which cannot be imitated. The instrument was used as early as the Turks with their Janissary music and eventually found its way into the classical orchestra repertoire of the eighteenth, nineteenth and twentieth centuries. “The triangle entered the European orchestra in the 18th century by way of the Janissary music of the Turkish soldiers.”¹ Drawings of early instruments show rings loosely hung which provided additional sound when struck. According to James Blades, “The humble triangle can lay claim to being one of the first purely metal percussion instruments to enter the modern orchestra (Hamburg Opera 1710). Until the end of the eighteenth century. . . it was used mainly to give added color. It became a permanent member of the orchestra during the early part of the following century, and in 1853 was raised to the rank of a symphonic solo instrument by Liszt in his Piano Concerto in E flat, causing, it is said, considerable consternation.”² Early examples of triangles include ornamental work at the open end, often in a scroll pattern.

Historically, the triangle has been manufactured from a solid iron and later steel rod and bent into a triangular shape roughly equilateral. In modern times, the scroll pattern has been abandoned and triangles are made from either steel or brass. Just after the turn of the century in the United States, triangles were fashioned in New England using the spindle from knitting machines (during this period, New England was the regional center for knitting mills). These spindles were fabricated from hardened steel which was turned on a metal lathe. The result was a triangle with sides of unequal diameter.

Most triangles range in size from four to ten inches in diameter. The preferred size for orchestra and concert band is between six and nine inches, the larger size being more suitable for literature from the Romantic period. Since there is no “correct” triangle size, it is the responsibility of the percussionist to select an instrument of suitable sonority for each particular work. Although the triangle is of indefinite pitch, it tends to blend with the overall harmonic sound of the band and orchestra.

Accessories

The manner in which the triangle is suspended is critical to the quality of sound produced. Since the triangle is a highly resonant instrument and must be free to vibrate, a good triangle clip with a very thin
About the Triangle
by Neil Grover & Garwood Whaley
From THE ART OF TAMBOURINE AND TRIANGLE PLAYING
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Suspension line is essential. A suspension line that is too thick or heavy will prevent the triangle from vibrating and produce an undesirable sound. One of the best materials to use is monofilament fishing line which is readily available and inexpensive. When tying the line to the clip, do not leave much slack or the triangle will have a tendency to turn when played. Make a second “safety” loop larger than the primary loop in case the first loop breaks.

The size and weight of the beater is also of great importance. Generally, heavier beaters of various metals produce the most sonorous sounds. There are a variety of beaters on the market today that are suitable for all types of music and ensembles.

Performance

Hold the triangle in the weaker of the two hands. The clip should be held between the ring finger and the thumb with the pointer on top. This method leaves the other fingers free for muffling. If at all possible, play the triangle with one hand while suspending it with the other. By holding the instrument up the sound is more easily projected and there are no extraneous stand sounds.

Strike the triangle “pushing out” away from the body while holding the instrument at eye level. When struck properly, the triangle will produce a fundamental sound with numerous overtones. The production of overtones is important and enables the instrument to blend with an ensemble. The triangle is a “coloration” instrument and must always blend with the ensemble. The instrument may be struck on the bottom or on the side. Wherever the instrument is struck, it must be with a pushing motion since a slapping motion will produce a hard, metallic ping rather than a beautiful, resonant tone.

Standard performance techniques include striking the instrument with steel beaters and, for special effects, wooden sticks. Fast rhythms are played either by suspending the triangle and using one beater in each hand or by moving a single beater back and forth from side to side on the inside of the instrument.

**TRIANGLE by Jillian Pritchard**

**General Playing Technique:**
A triangle should be suspended by a thin thread (fishing line works well) attached to a clip. The clip can be grasped such that the bottom fingers and part of the hand can be used for muffling, or hung on a music stand if quick switches to other instruments are required.

**Articulation:**
- Playing perpendicular to the triangle produces a sound with fewer overtones. This is good for articulate rhythms that need to be discernable (Fig. a).

- Playing at an angle somewhere between the perpendiculars produces a sound that has many overtones, giving a spread sound (Fig. b).

- Rhythmical passages (and rolls) may be played in either of the closed corners.

- Sometimes players decide to mount the triangle with two clips and play on the triangle with 2 beaters.
TAMBOURINE

General Playing Tips

1. Hold the instrument at a 45-degree angle to reduce extraneous sounds.
2. Hold the instrument in the sight line between player and conductor.
3. Use your strong hand for striking and your weak hand for holding.
4. Choose the best technique based on tempo and dynamics.

Techniques for Playing with One Hand Slow to Medium Tempos

1. Very Soft—Use one or two fingers on the edge of the head over a jingle. Dampen the head with the heel of your hand.
2. Soft to Medium Loud—Use more fingers to increase the dynamic. Play towards the center of the head to produce a louder sound.

3. Loud—Use your fist and knuckles to produce an articulate sound.

4. Loud and Accented—Use a flat hand with the palm on the head to produce a short, loud sound for accented notes.
Techniques for Playing with Two Hands

Fast Tempos
1. Soft Passages–Upside Down on Knee - Turn the tambourine upside down on your knee. Dampen and stabilize the instrument by placing forearms on the rim. Play the rhythm using fingers from both hands. One finger is the softest; add more fingers to increase the dynamic.

2. Loud Passages–Knee/Fist – Place your knee on a chair or stool. Hold the tambourine upside down with one hand and make a fist with the other hand. Move the tambourine between your fist and knee for articulate, fast playing. Generally the fist is used to start a passage.
Rolls
Sustained Sounds on Tambourine

Shake Rolls

1. Begin and end most rolls with a tap
2. Rotate the hand holding the tambourine quickly to create a sustained jingle sound.
3. Create a crescendo by increasing the motion of the wrist and starting the tambourine below hip level. Create a decrescendo with the opposite motion.

The above picture illustrates how to start a soft shake roll by rocking the tambourine with the free hand while it is in a vertical position.

Thumb Roll

1. Stick out your thumb in a “hitchhiking” position. Start your thumb at 6:00 o’clock on the tambourine and lightly rub counter-clockwise around the head.
2. Slightly wet the thumb to increase friction.
3. Other ways to increase fiction: rub beeswax around the perimeter of the tambourine, use rosin on your thumb, or attach a small, thin strip of fine sandpaper around the outer edge of the head.
4. End the roll with an attack from the heel of the hand.

Beginning a thumb roll.

Continuing a thumb roll.
Finger Roll

1. Similar to the thumb roll, but produces a softer sound.
2. Rub lightly with the middle finger around the outside of the head.
3. The thumb may be placed behind the middle finger to add support.
TAMBOURINE
aka: tambour de basque, tambourim

Selection
The tambourine is available in many sizes and jingle configurations. Most importantly, for concert playing, a tambourine with a quality skin head is essential! Headless "rock" tambourines are not a viable substitute. I suggest a general purpose, 10" diameter, quality tambourine with a double row of bright sounding jingles. Of course, it is always beneficial to have a few instruments with a range of sound characteristics available.

Grip
Hold the tambourine with a firm, yet flexible grip. Remember, the instrument needs to vibrate when struck. Right handed players should hold the tambourine in the left hand and strike with the right. Maximum clarity and articulation is achieved by holding the tambourine parallel to the floor. Maximum jingle resonance is achieved by holding the tambourine vertically. For general playing, the tambourine should be held at a 45 degree angle.

Stroke
Three fingers = general playing ($p$–$m$).
Four fingers = strong playing ($f$).
Closed fist = very aggressive playing ($ff$–$fff$).
Rolls = played by shaking with grip hand or using thumb (friction) roll.

Extra Sound
The tambourine can easily produce unwanted sounds if not handled with care. Be careful not to create unnecessary jingle sound when handling the tambourine during performance!
Performance

Holding the instrument properly is the first step in developing acceptable performance technique. A good tambourine will have a grip area usually with a hole for mounting the instrument on a stand when playing multiple-percussion parts. Although the mounting hole is sometimes referred to as the “thumb hole,” it is not intending for finger placement. Grip the tambourine firmly but not too tight since it must be free to vibrate when struck. Holding the instrument too tightly will inhibit the jingles from moving and consequently choke the sound.

With the hand striking the tambourine, bunch all five fingers together to form a striking surface. Use this “finger pad” to strike the instrument a third of the way in from the edge. This spot will produce the best balance between head and jingle sounds. When playing softly, play near the edge. For louder dynamics, move toward the center. It is important to experiment to find the best playing area for each individual instrument.

Begin playing with the tambourine held parallel to the floor (horizontal orientation) striking the instrument slowly. As you play, slowly angle the tambourine up until it is perpendicular to the floor (vertical orientation). You’ll notice that the sonority of the tambourine has changed from “dry” to “wet.” Changes in orientation can be used to enhance articulation or jingle resonance. For most playing situations, the tambourine should be held at an orientation half way between horizontal and vertical.


This study introduces thumb rolls which are executed by rubbing the thumb of the striking hand around the circumference of the tambourine head. The following will help:

- Bend your thumb back as far as is comfortable.
- Make sure that your thumb points in the direction of movement (think of your thumb as a car always pointed in a forward motion).
- Using the fleshy part of the thumb, apply a light yet consistent pressure against the head do not push too hard.
- Moisten your thumb with your tongue in order to create friction between your thumb and the head. Friction is the necessary component for playing a thumb roll.
The fist/knee technique is used when executing rapid articulations. While standing, elevate your leg by placing your foot on a stool or chair (your elevated thigh should be approximately parallel to the floor). If you hold the tambourine in your left hand, use your right knee and vice versa. Hold the tambourine upside down with the head facing the floor. Create a “sandwich” of knee, 6 inches of air, tambourine, 6 inches of air and then your fist. Keeping the knee and fist stationary, make an up and down motion using the arm to alternate the tambourine between hitting your fist and your knee. All motion is controlled with the arm, not the wrist. This technique is the only time you should grip the tambourine very firmly while keeping a stiff wrist.
TAMBOURINE by Jillian Pritchard

General Playing Technique:

Articulation:

- The tambourine should be held by the weaker hand where there is a break in the jingles.

- Experiment with the playing angle. A 45-degree angle produces the driest sound with no unwanted after-noise.

- Dynamic level can determine what part of the head to play on and with what part of the hand.
  
  Loud passages = fist toward center of head
  Soft passages = fingers toward edge

- Soft rhythmical passages can be played by resting the tambourine on a surface (leg, table, etc.) and using both hands.

- Some passages may be too fast to play with one hand. In these circumstances a “fist/knee” technique may be used.
Rolls:

Shake Rolls:
- The shake roll is the standard roll used when playing tambourine. The tambourine should be held at roughly a right angle at shoulder height.
- A smooth, closed tambourine roll is a combination of two motions:
  1. a rotation of the wrist and arm and 2. a hinge motion of the wrist

![Tambourine](image)

Thumb or Finger Rolls:
- A thumb roll is executed by running the thumb over the head, creating a vibration.
- Thumb rolls are ideal for very short or very soft rolls, although it is possible to play loudly.
- The end of a thumb roll can be articulated by: flipping the hand over head or snapping the wrist. When using a finger roll, the index finger can stop the roll. It is also possible to use the knee for final articulation.
MARACAS by Kristen Shiner McGuire

A. How to play a steady pattern.
   1. Hold maracas with palms facing the floor and pointer fingers on top.
   2. Keeping forearm still, flick wrists quickly.
   3. Use a small, snapping motion; try to keep the rhythm evens and the sounds clear.
   4. Avoid a galloping sound by emphasizing weak hand.
   5. Alternate way: hold both maracas in one hand (cross handles) and move back and forth in the air with a stiff forearm, like playing a shaker.

B. Rolling
   1. Shake back and forth in air, or
   2. Hold on maraca in each hand, with handles pointed towards ceiling and rotate like you’re stirring soup.

C. Typical patterns:

   ![Typical Patterns]

   a. \[\frac{4}{4}\] 
      \begin{align*}
      \text{RLRLRLRL} \quad \text{RLRLRLRL}
      \end{align*}

   b. \[\frac{4}{4}\] 
      \begin{align*}
      \text{RLRLRLRL} \quad \text{RLRLRLRL}
      \end{align*}

   c. \[\frac{4}{4}\] 
      \begin{align*}
      \text{LRLLRLLR} \quad \text{LRLLRLLR}
      \end{align*}
CASTANETS by Jillian Pritchard

General Playing Technique:

• Castanets consist of two pieces of wood in the shape of a shell that are hinged together.

• Castanets on handles are played by striking against the knee.

• Machine castanets are played with both hands. It is also possible to play mounted castanets with a pair of handle castanets for a louder sound.

• For an authentic sound, “flam” castanets whenever possible.

  • Rolling:

    • Handle Castanets – castanets are bounced between fingers and thigh.

    • Machine Castanets – rapid alternation of castanets with fingers.
ORCHESTRAL TECHNIQUES OF THE
STANDARD PERCUSSION INSTRUMENTS

by
Anthony Cirone

This series is from the book of the same name - Copyright 1971
by Cirone Publications, 3512 Glenwood Avenue, Redwood City,
California.94062.

TAM-TAM
Tam-Tam – Gong

The enormous amount of sound and the tendency of the instrument to crescendo
after it is struck makes the tam-tam very difficult to control. A very solid beater is
necessary to produce the sound the moment the tam-tam is struck. The right knee and the
left hand should be used to muffle the sound.

\[
\begin{align*}
\text{Largo} \\
\begin{array}{c}
\frac{1}{4} \\
\begin{array}{c}
\text{p} \\
\text{f} \\
\text{p}
\end{array}
\end{array}
\end{align*}
\]

A roll or sustained sound on the tam-tam is produced by continuous single strokes
with one beater. Very few strokes are necessary to sustain the sound since the instrument
rings for so long. The more the tam-tam is struck, the louder the sound will become. The
decrescendo in the third measure of the above exercise must be performed by stopping
the sound with your hand and knee.

\[
\begin{align*}
\begin{array}{c}
\frac{1}{4} \\
\begin{array}{c}
\text{p}
\end{array}
\end{array}
\end{align*}
\]

Many tam-tam notes are written with a line as above which indicates the sound
should be allowed to ring. The sound should be stopped where it musically makes sense.

When preparing to play a single note, the tam-tam will speak more quickly if the
performer quietly begins to set it in motion with very soft strokes. Also, it may be
necessary to anticipate the note in order for the sound to be heard at the right time.

It is very common for the composer to ask for the tam-tam to be struck or rubbed
with a metal beater.

Literally anything that can be struck may be considered a percussion instrument.
With the avante-garde trend in composition, many new sounds are created with objects
never before considered instruments. The important consideration should be very explicit
as to the exact nature of the instrument, what it should be struck with and in what way it
should be layed down or suspended. In many cases, such instruments as brake drums or
other metal objects produce different sounds in different places. If the composer does not
specifically state an area, the performer or conductor should experiment with the different
sounds and choose an appropriate one.
Arranging Your Drumset

Overall Setup
The drums and cymbals should be centralized around the player in such a way as to minimize reaching, stretching and twisting. The drums should be set in such a way as to accommodate the player—not the reverse.
Drumset
FUNdamentals
Dave Black & Mark Dorr

Throne (Stool) Height
The position and height of the drum throne is critical to proper balance and directly affects the flexibility and performance of the feet. Because each person is built differently, throne adjustments are of a personal nature. It is crucial to find a height and distance that will allow total relaxation, specifically of the hips, legs, ankles and upper body. (If you experience pain in your lower back, additional adjustments will need to be made.)

Adjust the throne height so the hip is slightly above the knee when sitting. Draw an imaginary straight line vertically from the front of your knee to the back of your foot. In this position, the ligaments, tendons and muscles are flexible and free to move naturally, whether you play heel up or heel down. (Stretching exercises will help achieve maximum flexibility.) From this position, make slight height and distance adjustments to suit your personal needs. Remember, if you sit too close or too far away from the drumset, your limbs may move unnaturally, causing undo stress on your joints, ligaments and muscles, which, in turn, will minimize flexibility when playing. Always set the drums up to you!

The Snare Drum
Whether played with matched or traditional grip, the snare drum should be positioned and angled so that the proper alignment of the forearms and hands is not affected. With matched grip, the snare drum is usually flat or slanted down toward the player; with traditional grip, the snare drum is usually tilted slightly down toward the right (if right-handed).

The Mounted (Rack) Toms
Drummers may use one or more mounted toms. They should be slightly tilted toward the player so as to allow him/her to clear the drums’ rims when striking the heads comfortably with the side of the stick tip. (The stick should almost be parallel to the drumhead.) Avoiding a severe angle with the drumstick will not only produce the best tone, but will also reduce the likelihood of damaging the drumhead.

The Floor Tom
The floor tom should be approximately the same height as the snare drum. It may be slightly angled toward the player or toward the snare drum.
Overall Cymbal Setup

If you are using several cymbals, it is wise to arrange them around yourself in such a way as to minimize reaching, stretching and twisting. In order to obtain the most optimal tonal/playing position, the cymbals should be positioned so that your elbow is slightly ahead of your shoulder in order to avoid tension. The exact placement, of course, will depend on your physical size and technical ability. If a regular cymbal stand does not allow for correct positioning of the cymbals, the use of a boom stand is highly recommended. Remember, proper cymbal positioning will help to assure optimal sound quality and volume while minimizing any possibilities of damage to the cymbal(s). Again, the drums/cymbals should be set in such a way as to accommodate the player—not the reverse.

The Ride Cymbal
The ride cymbal should be positioned in such a way as to allow the stick to strike 2 to 4 inches in from the edge.

The Crash Cymbal(s)
Drummers often use one or more crash cymbals so that a cymbal can be matched with a particular instrument sound. Crash cymbals are generally tilted slightly and positioned so that the drumstick’s shaft is allowed to strike the cymbal’s edge at about a 45-degree angle. (Some drummers place their crash cymbals above normal playing height to maximize visual effect.)

Extreme angling of a crash cymbal will restrict the cymbal’s movement, diminish its response and put unnecessary pressure on the bell (cup) area. If a greater cymbal angle is desired, a cymbal tilter—often also incorporating a spring to serve as a shock absorber—may prove desirable.

The Hi-Hat
The hi-hat is placed to the left of (and slightly above) the snare drum, and is operated by the left foot (for a right-handed player). The hi-hat consists of a pair of cymbals mounted one above the other and connected to a foot pedal. When at rest, the cymbals should be separated by 1 to 2 inches.
Have You Had Your “Fill” Today?
When playing with a band, the drummer is expected to perform a variety of roles, even within a single chart. While the primary function is to keep time, the drummer is also often called upon to serve in a number of ways, including the following.

Drum Fills
Fills are used to “fill in” space and usually occur at phrase endings. They are not to be played loudly, as they are often played along with other instruments.

Fills in a rock idiom

Fills in a jazz idiom
Solo Fills
Solo fills are simply fills played in solo fashion, without any other instruments sounding. They are generally played louder with the purpose of drawing attention to the drummer. Always practice fills in a musical “time” setting; although fills break away from the basic beat, they should not speed up or slow down. As a general rule:

1. One should think of fills as melodic lines.
2. Fills can be used as a way to bridge sections of a musical work.
3. The volume and complexity of a fill will depend on what happens next within a specific tune.
Playing Setups for Ensemble Figures
The drummer is expected to "set up" major ensemble entrances. This concept, idiomatic to jazz alone, calls for a drummer to play a rhythm that leads up to a major ensemble entrance. It usually ends on the beat just before the ensemble figure begins and helps to keep the ensemble's entrance tight.

Example A:

Example B:

Within the context of an ensemble “shout chorus”
Soloing

Drummers are frequently called upon to solo within a piece of music. Such solos can be measured (for example, 4 bars in length) or unmeasured (often called “open,” meaning that the solo’s length is up to the drummer and/or band leader).

An extended discussion on how to play fills/solos goes beyond the scope of this clinic. The best way to get a feel for how to play fills is to listen to recordings of great drummers, attend live performances, play along with your private instructor, and to practice in an ensemble setting (including bass, piano, guitar, etc.). There is simply no substitute for a great deal of focused listening and/or playing in order to master the playing of ensemble figures, solos and fills.
Suggested Method Books for Private Lesson Study
(Beginning to Intermediate Level Drumset)

There are many excellent drumset methods available today. Here are a few suggestions to get you started:

**Technical Studies and Sight-reading:**
- *Stick Control*, George L. Stone
- *Progressive Steps to Syncopation for the Modern Drummer*, Ted Reed
- *Accents and Rebounds*, George L. Stone
- *Modern Reading Text in 4/4*, Louis Bellson and Gil Breines
- *Modern School for Snare Drum*, Morris Goldenberg
- *Modern Rudimental Swing Solos*, Charles Wilcoxen
- *Modern Interpretation of Snare Drum Rudiments*, Buddy Rich and Henry Adler

**Multiple Musical Styles and Topics:**
- *Alfred’s Beginning Drumset Method*, Sandy Feldstein & Dave Black
- *Drum Sessions I-II*, Peter O’Gorman
- *Studio and Big Band Drumming*, Steve Houghton
- *Jazz, Rock, and Latin Sourcebook*, Charles Dowd
- *Moves and Grooves*, Elliot Fine
- *The Ultimate Drumset Reading Anthology*, Steve Houghton

**Chart Reading (exclusively):**
- *You’re In The Band, Volume I*, Mike Ehrhard
- *Essential Styles for the Drummer and Bassist I*, Steve Houghton and Tom Warrington
- *I’ve Got You Under My Skins*, Irv Cottler
- *The Ultimate Drumset Reading Anthology*, Steve Houghton

**Jazz:**
- *Alfred’s Beginning Drumset Method*, Sandy Feldstein & Dave Black
- *Shuffle Drumming Workbook*, Chet Dobe
- *Studio and Big Band Drumming*, Steve Houghton
- *Jazz, Rock, and Latin Sourcebook*, Charles Dowd
- *Drum Solos and Fill-Ins for the Progressive Drummer*, Ted Reed
Rock, Fusion, Funk, Contemporary:
Alfred’s *Beginning Drumset Method*, Sandy Feldstein & Dave Black
*A Funky Primer*, Charles Dowd
*Realistic Rock*, Carmine Appice
*Rockin’ Bass Drum, Book II*, John Lombardo and Charles Perry
*The Encyclopedia of Groove*, Bobby Rock
*Rock ‘n Roll Drums*, Palmer-Hughes
*Monster Book of Rock Drumming*, Joel Rothman
*Jazz, Rock, and Latin Sourcebook*, Charles Dowd

Afro-Caribbean, Brazilian, African:
*Jazz, Rock, and Latin Sourcebook*, Charles Dowd
*Moves and Grooves*, Elliot Fine
*Brazilian Percussion Manual*, Daniel Sabanovich

General Reference:
*52nd Street Beat: Profiles of Modern Jazz Drummers 1945-1965*, Joe Hunt
*The Great Jazz Drummers*, Ronald Spagnardi / William F. Miller, ed.
*For the Record: A Collection and Analysis of Transcribed Drum Solos*, transcribed by David M. Wood
*Hitmen: Inside Look at the World of the Studio Drummer*, Sam Bradley
*Different Drummers*, Billy Mintz
*Drum Wisdom*, Bob Moses
Suggested Method Books for Private Lesson Study
(Intermediate to Advanced Level Drumset)

There are many excellent drumset methods available today. Here are a few suggestions to get you started:

**Technical Studies and Sight-reading:**
- Accents and Rebounds, George L. Stone
- Master Studies, Joe Morello
- Odd Time Reading Text, Louis Bellson and Gil Breines
- The Moeller Method, Jim Chapin (ms)
- Portraits in Rhythm, Anthony Cirone
  - Patterns: Volume I-Rhythm and Meter Patterns, Gary Chaffee
  - Patterns: Volume II-Sticking Patterns, Gary Chaffee
  - Patterns: Volume III-Time Functioning Patterns, Gary Chaffee
  - Patterns: Volume IV-Technique Patterns, Gary Chaffee
- Drumset Etudes, Books I-III, Joe Holmquist
- Drumset Reading, Ron Fink
- Linear Drumming, Michael Snyder

**Multiple Musical Styles and Topics:**
- Musicians Guide to Polyrhythms, Volumes I and II, Peter Magadini
- The New Breed, Gary Chester
- Studio and Big Band Drumming, Steve Houghton
- Drum Concepts and Techniques, Peter Erskine
- Double Bass Drumming, Joe Franco
- Bass Drum Control, Colin Bailey
- Even in the Odds, Ralph Humphrey
- Jazz, Rock, and Latin Sourcebook, Charles Dowd
- New Orleans Drumming, Roy Burns and Joey Farris
- Moves and Grooves, Elliot Fine
- Poly-Cymbal Time, Peter Magadini
- A Drummer's Digest of Rhythms and Charts, Fred Bocchino
- Essential Techniques for the Drumset, Ed Soph
- The Ultimate Drumset Reading Anthology, Steve Houghton
- Country Styles for the Drummer and Bassist, Brian Fullen and Roy Vogt
- Alfred MasterTracks (Blues; Jazz; Fusion; Latin), Steve Houghton and Tom Warrington
- New Orleans Drumming, Roy Burns and Joey Farris
Drumset
FUNdamentals
Dave Black & Mark Dorr

Brush Technique:
The Sound of Brushes, Ed Thigpen
Contemporary Brush Techniques, Louie Bellson, Hank Bellson and Dave Black

Chart Reading (exclusively):
Essential Styles for the Drummer and Bassist II, Steve Houghton and Tom Warrington
Drummers: Masters of Time, Steve Davis
Standard Time: Jazz Drums, Steve Davis
Jazz Drums: Style and Analysis, Steve Davis
Wipe Out, Jim Chapin
Drumset Reading, Ron Fink
I’ve Got You Under My Skins, Irv Cottler
The Ultimate Drumset Reading Anthology, Steve Houghton
Their Time Was The Greatest, Louie Bellson

Jazz:
Advanced Techniques for the Modern Drummer, Volumes I & II, Jim Chapin
The Art of Bop Drumming, John Riley
Shuffle Drumming Workbook, Chet Doobie
Jazz Bible of Coordination, Joel Rothman
Drum Solos and Fill-Ins for the Progressive Drummer, Ted Reed
Drumset Independence and Syncopation, Dave Black
Alfred MasterTracks - Blues, Steve Houghton and Tom Warrington
Alfred MasterTracks - Jazz, Steve Houghton and Tom Warrington

Rock, Fusion, Funk, Contemporary:
Future Sounds, David Garibaldi
Advanced Funk Studies, Rick Latham
The Drummer’s Cookbook, John Pickering
Alfred MasterTracks - Fusion, Steve Houghton and Tom Warrington
A Funky Primer, Charles Dowd
Encyclopedia of Groove, Bobby Rock
The Fusion Drummer, Murray Houllif
Linear Drumming, Michael Snyder
Drumset
FUNdamentals
Dave Black & Mark Dorr

Afro-Caribbean, Brazilian, African:
Rhythms and Colors: Listen and Play, Airto Moreira
Afro-Cuban Rhythms for Drumset, Frank Malabe and Bob Weiner
The Drumset with Afro-Caribbean Rhythms, Parts I & II, Chuck Silverman
Practical Applications Using Afro-Caribbean Rhythms, Part III, Chuck Silverman
Brazilian Rhythms for Drumset, Duduka Da Fonseca and Bob Weiner
The Essence of Brazilian Percussion and Drumset, Ed Uribe
Fundamentals of Calypso Drumming, Lennard V. Moses
Realistic Reggae Rock, Carmine Appice
West African Rhythms for Drumset, Royal Hartigan, Adzenyah, and Donkor
Latin Rhythms for Drums and Timbales, Ted Reed
Alfred MasterTracks - Latin, Steve Houghton and Tom Warrington
The Essence of Afro-Cuban Percussion and Drumset, Ed Uribe
Brazilian Percussion Manual, Daniel Sabanovich
Afro-Latin Rhythm Dictionary, Thomas Brown
Rhythms and Colors / Listen and Play, Airto Moreira and Dan Thress
THE FUNDAMENTAL ROLE OF THE DRUMMER

- To play steady, confident time in any style
- To support dynamics within the ensemble
- To outline the tune form, beginnings and endings, etc.
- To compliment the soloist and/or ensemble

THE FUNDAMENTAL SET-UP OF THE DRUM SET

- Placement of the body in relation to the set
  The body should be square to the set, where you can draw a line "through" the player, across the snare drum and over the first mounted tom, creating a balanced set-up. Setting up "off-center" can create a balance problem, placing the majority of the set to one side of the player.

- Height and angle of drums and cymbals
  The height and angle of drums and cymbals should promote natural strokes and set-up. Wide differences in height between drums cause the player to have to work very hard to produce even the most basic motions. Severe angles of cymbals do not promote natural rebound and strokes. DO NOT allow the set-up of a famous drummer be the only consideration in how your drums are set!
THE FUNDAMENTAL STROKE OF THE HANDS AND FEET

The wrist is the primary element in the drum stroke
- The bass drum stroke—heel up and heel down
- The hi-hat stroke—heel up, heel down, rocking

THE FUNDAMENTAL ROLE OF THE LIMBS

In Swing: Basic time is created through the ride cymbal and hi-hat

In Rock: Basic time is created between the snare drum and the bass drum
A FUNDAMENTAL COLLECTION OF DRUM SET BOOKS AND RECORDINGS

This is a very basic list of books and recordings which should be helpful in addressing fundamental concepts in both swing and rock styles. The suggested recordings are primarily directed toward swing style, as the typical young player has a general understanding of the rock style.

BOOKS

*Contemporary Country Styles*, by Brian Fullen (Alfred, publisher)

*Drum Sessions*, by Peter O’Gorman (Neil A. Kjos, publisher)

*Essential Styles, Vols. I & II*, by Steve Houghton/Tom Warrington (Alfred, publisher)

*Linear Time Playing*, by Gary Chaffee (Warner Brothers, publisher)

*Progressive Steps to Syncopation*, by Ted Reed (Warner Brothers, publisher)

RECORDINGS

James Brown: *20 All-Time Greatest Hits* (various drummers); Polydor

Miles Davis: *Kind of Blue* (Jimmy Cobb, drums); Columbia

Miles Davis: *Milestones* (Philly Joe Jones, drums); Columbia

Miles Davis: *Four and More* (Tony Williams, drums); Columbia

Max Roach: *Live at Basin Street* (Max Roach, drums); Mercury

Fats Domino: *The Best of Fats Domino* (Earl Palmer, etc., drums); EMI

Art Pepper: *Art Pepper+11* (Mel Lewis, drums); Contemporary

Buddy Rich Band: *Big Swing Face* (Buddy Rich, drums); Pacific Jazz

Various: *Rock Instrumental Classics* (various drummers); Rhino
Glossary of Drum Set Styles
Standard Commercial Rhythms
by
Bob Breithaupt

50's Rock

60's Rock

"Soul"

Basic Disco

"Funky"

Square Dance

Waltz

Jazz Waltz

Shuffle

Swing

Dixieland

Be-bop

As an Educator, You Should Help Your Students...

or

As a Serious Drummer, You Should...

1. Know the most logical set-up of the drum set.
2. Understand the placement and function of the rhythm section.
3. Generate relaxed techniques, adequate to play fast and slow; loud and soft.
4. Develop a concept of “good” sound, appropriate for various styles.
5. Define the “role” of each limb for creating basic grooves in a variety of styles; the relation of feel and balance on the set.
6. Understand basic tune forms and how to support those forms.
7. Support the soloist through various, simple “comping” techniques on drums; learn to “sing” various articulations and apply to the set.
8. Create a visual and aural image as a fine drummer as young athletes see themselves as “superstars.”
9. Study masterful drummers in addition to the “masters.”
10. Construct logical, musical drum solos, while keeping in perspective that this point is last on the list!
Names of drummers you should know: Louie Bellson, Hal Blaine, Earl Palmer, Bernard Purdie, Gary Chester, Gene Krupa, Baby Dodds, Zutty Singleton, William Ludwig, Sr., and Dee Dee Chandler

**History**
- Drumset began to evolve in the 1890s—the result of the popularity of John Philip Sousa’s music, the lack of enough drummers, the inclination of music contractors to hire too few drummers, the lack of space in orchestra pits for enough percussionists, and the emergence of urban music (especially from New Orleans).
- The New Orleans musicians changed the Sousa format of three drummers to two (a snare drummer and a bass drummer with cymbal); the second line rhythm with press rolls.
- Double drumming emerged, where one drummer plays bass drum and snare drum using only his or her hands.
- Drummers, therefore, began looking for ways to play the bass drum some other way. The bass drum pedal was the natural consequence. Dee Dee Chandler is generally considered the first to play with a pedal in the late 1880s or early 1890s.
- Once the bass drum pedal appeared, the drumset began to evolve. The Ludwig Drum Company got started when William Ludwig developed the first successful metal pedal.

**Music**

The Sousa drum parts emphasized the upbeat and downbeat.

Sousa’s drummers actually played crush/press rolls accenting the upbeat.
The New Orleans drummers adopted the Sousa approach with a little “swing.”

Time was played on the snare till the 1930s, when drummers began using cymbals like we use today.

Let’s focus on how the cymbal and hi-hat work.

Jazz time

\[ T = \text{Tap, } S = \text{Stroke} \]
Dance music of the 1940s and 50s began to emphasize the backbeat on the snare drum.

By the 1960s, rock drumming as we know it emerged.

Rock time

or

Basic rock fill
Four-bar phrase

Other common time patterns used in rock music.

12/8 time

Shuffle
All-Purpose Latin

Bossa Nova
FUNdamental Grooves
by Pat Petrillo

1. “Shufflin’”

You may also play this with straight quarter on the bass, or shuffle both hands.

2. “Rockin”

Play this groove with Ringo-like enthusiasm...Like there are 5,000 screaming girls (or boys) watching you play. Try sizzling the hi-hat as well.

3. “Real Funk”

I call this the “Funk Clave” from the 1979 hit “Got to be Real!” Cheryl Lynn

4. “Drivin”

This is the definitive groove for “Motown”, (just not on “Can’t hurry love!”)

5. “Swamp thang” a.k.a. “Bo Diddley”

Try “swinging” this groove as well.

Visit Patpetrillo.com for virtual cyber lessons in 2005
This handout is a collection of basic drumset beats that cover the three main areas of popular music, jazz, rock, and Latin. There are several things to remember when practicing these or any grooves for that matter.

Before you set out to learn a new pattern or groove you must start to build a concept for the music; this will help you understand all of the elements of the style, not just the drum part. I can’t stress enough how important listening is. I like to say that drumming is 50% technique and 50% concept and that concept comes primarily from listening to players live or on recordings. Remember, you play like what you listen to. Here are a few more things to consider:

1. Keep solid time
   - This simply means to play attention to your time keeping.
   - Practice with a drum machine or metronome.
   - Counting out loud while learning the new beats will help a lot.

2. Make it feel good
   - This is really a matter of listening to what is going on around you and fitting in musically. Especially listen to the bass player.
   - Balance... The balance between limbs can really affect the feel. For example, if the hi-hat is too loud in a rock groove or the bass drum too loud in a Latin groove, it can sound (feel) very uncomfortable, even if the time is steady. Feel has to be realized, mostly through listening to the masters of all the different styles.

3. Play with energy and purpose
   - It is very common when learning a groove or beat to play it kind of timidly. This, of course, won’t work because the drummer is the backbone of any group, so play with some spirit and enthusiasm.

4. Have fun
   - This is actually the most important element of music. If you aren’t having fun, forget it because the music will always suffer.
Basic Beats
by Steve Houghton

Jazz Ride Beat

Basic Jazz Beat

Jazz Beat with S.D. Improv.
Basic Beats

by Steve Houghton

Rock

Rock Groove (bass and snare)

Basic Rock Groove (quarter-note feel)

Basic Rock Groove (eighth-note feel)

Basic Rock Groove (sixteenth-note feel)

Basic Rock Groove with Fills

Drumset Page 3
Latin

“Cheater” Bossa

Bossa Nova
Developing a Great Sound:
The Swing Ride Cymbal Pattern

By Michael Gould

Sound production on a percussion instrument is often one of the last frontiers a student is faced with before moving on to other, more challenging techniques or another instrument within the percussion family. If one looks at the time a student spends on sound production with other instruments, for example, the trumpet (embouchure, breath support, posture), one quickly realizes that perhaps some more attention should be spent focusing on these issues with percussion. Because a student can achieve an immediate and somewhat recognizable “sound” on any given percussion instrument, especially in comparison with other beginning students on other instruments, sound quality issues usually fall much later in the maturation process of the percussionist. However, the earlier these issues can be addressed in the developing percussionist, the more musical, sensitive and mature he/she will become while performing.

The teacher plays a crucial role in the development of a student’s sound through example. This paradigm has been in existence since the beginning of time—“Hear a great sound, play a great sound!” This is the role of the teacher-student relationship. This can also be achieved through a student’s critical listening of recordings, and watching live and recorded performances. Although the following will detail achieving a great sound on the ride cymbal while playing a swing pattern, the principles of achieving excellent sound production cross-over to every instrument in the percussion family—from beautiful seamless closed rolls, great crashes on cymbals to warm, full-bodied strokes on a timpano.

The following will detail how I develop the ride concept with my students. This process is heavily dependent upon both the student and myself performing each example during the lesson, as well as listening to and playing along with recordings.

Before one even approaches a cymbal or drumset there are three areas that should be addressed in creating a great ride cymbal sound: the stroke, playing area and position of the instrument.

Free-rebound stroke

The stroke is one of the most important components of creating a good tone or sound. The free-rebound stroke is well suited for creating a relaxed approach to striking the cymbal, and helps achieve a full, resonant cymbal sound. The following describes the creation of the free-rebound stroke while striking a drum. A similar technique is followed for playing the ride cymbal:

The free-rebound stroke coordinates muscle movements in the fingers and wrist. The two phases of the stroke consist of a down stroke and the contrary upstroke. The down stroke starts with the stick (striking implement), wrist and forearm in a neutral position parallel to the drum. The tip of the stick should reach slightly off center from the middle of the drum. In bending the wrist, the stick should rise about 12 to 13 inches above the drum. With a quick whip-like motion of the wrist, similar to casting a fishing rod or bouncing a ball, the stick is propelled to the surface of the drum. The fingers remain loose, and do not inhibit the motion of the wrist. These are the actions needed to complete the down stroke.
Upon completion of the down stroke, the upstroke begins as the stick rebounds from the tensed surface of the head. The whip-like rebounding action will help bring the stick back to the position it assumed at the beginning of the down stroke. This type of free-rebound stroke employs the complete range of motion of the wrist and provides the greatest volume. For lower dynamics, the performer begins the downstroke much closer to the striking surface. By decreasing the height of the downstroke, the drum resonates less, which results in decreased dynamics and loss of some sound quality (for a more detailed description of the free-rebound stroke, see Gary Cook’s, Teaching Percussion, Schirmer Books; ISBN: 0028701917).

Playing Area – Position of the Cymbal

Placement of the stick on the ride cymbal dictates the overall tone quality of the instrument. For general ride playing the striking area should be 3–5” from the edge of the cymbal. As with every cymbal or idiophone, one must experiment to find the best sounding area or “sweet-spot” of each particular instrument. The height, angle and mounting of the cymbal also play a large part in the overall sound of the cymbal. The height of the ride cymbal should be positioned so that the wrist of the percussionist is in a neutral position. This is similar to shaking someone’s hand—the wrist is not bent at a sharp angle. The angle of the cymbal is also critical to sound production. If the angle of the cymbal is too sharp, the cymbal will become choked. It is important to split the difference between getting a great angle for one’s hand position/stroke and not choking the cymbal. The cymbal should remain free-floating on the cymbal stand without being choked by the washer, rubber sleeve or wingnut.

The Breakdown of the Swing Ride Pattern

The Quarter Note Ride Cymbal Pattern

The basis for the swing ride pattern is built off of a four-quarter note pulse in common time (example one). The percussionist should employ the free-rebound stroke for each of the four-quarter notes. The grip may be altered from a matched grip to one where the thumb is on top of the stick. This is similar to a French grip used when playing timpani. The hand remains very relaxed.

Example one: Quarter Note Ride Pattern

Two Playing Areas on the Ride Cymbal

Two playing areas are utilized on the cymbal while performing a swing ride pattern. There are several reasons for keeping two distinct areas of attack. First, one wants to differentiate between strong and weak beats. This helps establish an excellent groove and will usually match up very well with the bass player. One does this by alternating beating areas between each quarter note pulse. Second, establishing two striking areas helps keep the cymbal “excited”. If one were to perform in the exact same beating or striking area of the cymbal, one would notice a much drier or dead sound.

It also helps if the student develops a mental-aural concept of a great cymbal sound. The mental-aural concept places an image with the sound of the instrument. It also helps the student hear a great sound before playing one. I like to explain the four-quarter note ride pattern as the sound of someone walking (like a walking bass line) down a very resonant hallway with tap shoes on. This seems to tie together the two areas on the ride cymbal with the gate of someone walking with their left and right feet. During this phase of the pattern, the stick height should remain at the same height for both playing areas.

Example two: Two Playing Areas

"The Drop"—Stroke and a Bounce

The drop is an integral part of the swing pattern to help relax not only the performer’s approach to playing swing, but to help with the overall “groove.” The “a” of beats two and four lead to beats one and three and can be considered one stroke followed by a bounce (sometimes referred to as a stroke and a bounce). The performer only supplies the upstroke for the last eighth note of the triplet followed by the natural rebound of beat one or three. The stroke height should be the same distance away from the cymbal as beats 2 and 4.

Example three: The Drop—Stroke and a Bounce
Triplet Subdivision or Inner Pulse

Since swing is generally triplet-based music, one must subdivide the ride pattern in triplets. This will help place each triplet in-time and help with the overall "feel" or "groove" of the style. If the student cannot play the triplets on the snare drum while simultaneously playing the ride cymbal pattern it is important that a metronome or the teacher play triplets with the student.

Example four: Triplet Subdivision or Inner Pulse

Putting It All Together!

The beginning drumset student will have a much better chance of creating a great sounding and grooving cymbal sound and swing pattern by adhering to a relaxed free-rebound stroke with the proper cymbal position and playing area. By critically listening to not only the teacher during lessons, but recordings the student will further develop ideas on sound and ride cymbal patterns. Following these simple steps not only creates a great cymbal sound but a grooving swing pattern. Good Luck.

Overview:
1) Free-rebound stroke
2) Playing Area--Position of the Cymbal
3) The Quarter Note Ride Cymbal Pattern
4) Two Playing Areas on the Ride Cymbal
5) "The Drop"--Stroke and a Bounce
6) Triplet Subdivision or Inner Pulse
7) Now Play!!

Example four: Putting it all Together!
Of all performance idioms the marching percussion ensemble has proven to be one of the most demanding on equipment. Competitive tours, travel, constant rehearsal, and heavy performance schedules take their toll on virtually every instrument utilized. Manufacturers have tried valiantly to keep ahead of the problem, but many limitations stand in the way. As a result, increased knowledge about why equipment keeps breaking will put you ahead of the game.

Mallet Keyboards
A common complaint about field keyboards has dealt with bar cracking and breakage. Synthetic xylophone and marimba bars were developed as a cost alternative to rosewood, and not solely for the marching application. Synthetic bars are sold under a number of trade names, but are basically differing composites of polystyrene fiber glass, often heated to help obtain proper pitch, and finished to better resemble rosewood. What breakage occurs is due to a combination of factors: 1) the constant impact of hard mallets, 2) the fact that the density of the bar material during curing tends to make the fiberglass more brittle, and 3) the nature of fiberglass itself. A resinious compound, heated or not, is not going to exhibit the same flexiblity as rosewood when struck with a mallet head. Rosewood is the softer of the two materials (hence the shorter decaying time) so it assists more in the absorption of the impact. The larger the bar, the more severe the problem, due to the thinness of the bar at its most ground out tuning point. The solution to this is to select mallets that will assist in absorbing impact, such as clear acrylic (as opposed to phenolic or plastic) for upper register instruments, and heavy (not hard) wound mallets for the lower register keyboards.

For the sake of weight and cost, some keyboard frames are now of a molded plastic or dense foam material, instead of wood. Extra care must be taken with these because they are more likely to break with abuse. The same considerations apply to resonator tubes. These are constructed of soft sheet aluminum and must be treated with care. Steel has been used in the past, but sets could weigh between 10 and 20 pounds and were far more expensive to assemble.

Timpani
The two most prevalent timpani problems have been folded fiberglass bowls and stripped tuning assemblies. Fiberglass timpani bowls are designed to withstand only a minimum amount of tension above the specified range of each drum. Reinforcement around the bearing edge is usually quite substantial, but around the lug assembly this may not be the case. Any collapsing will normally start here, with the spider rod pulling inward on the lug assembly and flattening the shell at that point. The solution here is simple; make all efforts to keep the pitch of the drum within its specified range (check with the manufacturer).

Tuning mechanisms may pose problems as well. On a machine style timpani (hand crank tuning versus pedal), the speed with which the tuning changes are made may cause heat buildup in the threads, speeding up metal deterioration, and stripping the assembly. Be sure to keep all moving parts sufficiently lubricated, but keep in mind that repeated turning of any thread will force the lubricant to move to the extreme ends of the tuning range. Though it may look like sufficient lubricant still exists, closer inspection may show that the section of thread used most is dry. Frequent inspection is recommended.

Tonal Bass Drums
Marching bass drums provide three areas of concern: the hoops, tuning hooks, and lug casing breakage. I've been presented with numerous inquiries about bass drum hoop warping, even when the hoops are new. Wooden bass drum hoops are generally made of solid maple, soaked, heated, and turned to the desired diameter. The ends are then tapered and glued. The seam fastening process usually results in a small flat spot on the hoop. In addition, because the hoop is turned (basically a controlled warping process), there is some tension with in the wood itself. This allows the wood to distort with any and every variance in humidity, whether under tension or not. When mounted, a hoop at high tension will also eventually develop ears at the positions the tuning hooks are located. I know of no concrete solution for either of these problems, so periodic replacement will probably be necessary.

Many bass drum claw hooks are formed from stamped sheet metal, and are available in a number of configurations. Maintaining higher drum pitches has caused these hooks to be put under far more stress than they were originally designed for. I recommend using hooks that wrap around the hoop uniformly, and not hooks with one folded side. The flat side hooks tend to bend back and flatten out too quickly.

Situations will arise when tensioning the bass drum that will cause the lug casing to break. Most tension lug casings are castings of a zinc alloy commonly known as white metal, and have reinforcement ribs inside. The breakage is caused by the tension rod bottoming out on one of the reinforcement ribs, stopping the rod from turning within the casing. Continued tensioning then turns the entire casing as well as the rod, causing the casing to twist and break. A second cause is the tension rod not threaded sufficiently. The threads end before the head is adequately tightened, and the lug casing is then turned at the lug nut (or end of the casing). Either way, it is the manufacturer's responsibility to see that each drum is supplied with the proper length of rods, and that each rod has sufficient thread.
Snare Drums and Multi-Toms
Marching snare drums and multi-tom combinations (quads, trios, etc.) present many similar problems. To achieve the pitch(es) necessary, tension rod thread deterioration often occurs as well as some shell distortion (flattening). The friction caused by tuning to higher pitches creates tremendous heat buildup in the tension rod and lug nut, speeding up normal metal fatigue. Using two rod washers on each tension rod helps dissipate the heat in the rod caused by the friction with the hoop. I also recommend that you make sure your tension rods are made of a "case hardened" steel. Use double washers on snare drum bottom heads only. Tension rods used on snare bottom heads require only one washer (see Figure 1). A problem unique to snare drums is that of gut snare pulling out of their assembly. Make sure both ends of the snare strand are burned adequately to form a knot large enough not to pass through the grommet. Keep snares as dry as possible and, when tensioning, remember not to overtighten them, choking off the bright tone characteristics. I would also recommend a strain (or throw off) that offers separate vertical and horizontal snare adjustments. This type of unit allows for more consistent and sensitive tuning, not to mention prolonged snare life.

In all the above cases (excluding mallet keyboards), proper lubrication of tension rods is of primary importance. For those actively involved with equipment maintenance, this is second nature. For those not, its importance cannot be overstated. In addition, shell bearing edges should be smooth, clean, and uniform, and display enough of an edge to force the head (mylar) surface to crease when tensioned.

Implements
As was true in the discussion of rosewood versus synthetic keyboard bars, so it is with mallet and drum stick shafts. Many synthetically impregnated wooden shafts may add desired weight, but any part of the shaft that isn't primarily wood isn't going to flex like wood, and the potential for breakage will increase (unless, of course, the wood is bad at the outset).

I've heard numerous complaints centered around felt tenor (multi-tom) mallet balls, and the fact that they wear out so quickly. The causes for this can range from being soaked through in a rainstorm, to students practicing parts with the mallets on a cement sidewalk. Excess body fluids can deteriorate a felt ball as well. Implement breakage probably can't be stopped, but it can be slowed down. Attempt to handle mallets by the beater ball as little as possible, be selective about what you practice on if not on a drum, and take drum sticks out to the practice field instead of mallets if it looks like rain. Double check for beater head mounting as well. If the mallet head is epoxied over a finished shaft, chances are pretty good it won't hold for long. Epoxy will hold well to raw wood, but not to a stained, varnished, or shellacked finish that seals the wood.

Carrying Harnesses
The most common concerns here deal with how much weight, or how many drums the carrier can support securely and comfortably, and whether or not the padding deteriorates or falls off. Fiberglass shell-type carriers require that you make sure the shoulder straps are reinforced structurally, and that there is little or no flex at the Point(s) where the drums meet the carrier. The same holds true with the T-frame design, especially at the point where the stomach plate joins the bottom section of the "T."

The padding should be able to breathe, and not deteriorate when exposed to perspiration. The adhesive used to bind the padding to the carrier should hold equally well to both the padding and the carrier material. One major manufacturer consulted with a company making shoulder pads for the NFL (as in football) and has had great success with the process. T-frame carriers should be constructed of either structural aircraft aluminum or galvanized steel (to inhibit rust) and have as few nuts and bolts as is necessary to make all the proper adjustments.

It might be a good idea to spend the first few rehearsals of each marching season reviewing these principles with your percussionists, making sure that they all understand their own responsibilities. Through each section member's daily care and your periodic inspection, you will find that your marching percussion instruments remain as healthy as possible for a longer period of time.

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problems. In addition, the combination of stresses in direction A and direction B create pressure in direction C, causing shell stress and potential collapse. Under high tension: 1) the thinner the shell, the greater the probability of shell failure; and 2) the fewer the tension rods (less than 10 on a 14” shell), the greater the chances of hoop distortion.

A graduate of Millikin University and the U.S. Navy School of Music, Ward Durrett served previously as educational director of the Slingerland/J. C. Deagan Companies. Presently, he is clinician for both the Yamaha Drum Company and Sabian Cymbals, Ltd., and is also director of admissions at VanderCook College in Chicago. Durrett is on the Percussive Arts Society marching percussion advisory committee, is past president of the Illinois chapter of PAS, and is a member of the Central States Judges Association and the Marching Bands of America Judges Guild.

Rich Holly
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Features

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Summer 1987 / 17
TUNING YOUR MULTI-TENORS

BY NEAL FLUM


Multi-Tenors have the capacity to provide some type of melodic presence within the marching percussion ensemble and within the musical ensemble as a whole. And they do have the capacity of being tuned to a somewhat discernible pitch. It would seem to follow then that the words “pitch” and “adjusting,” as found in the definitions from The New Harvard Dictionary of Music, lead us to consider that we should develop an understanding of how we go about deciding and achieving “pitch” for our multi-tenors. The ability to adjust the tuning of our multi-tenors also merits that we should become more sensitive to how the voice of our multi-tenors relates to the other percussion battery voices and the musical ensemble as a whole. What follows in this document is not so much a specific “how to” approach as it is a conceptual guide for those individuals who wish to take their first steps towards understanding the tuning process as it relates to multi-tenors.

I. What is it that we seek as our goal when we tune our multi-tenors? We want our instrument to:
   A. have a characteristic sound
      1. think function of the instrument
      2. think about quality of sound
   B. have the appropriate placement within the choir of voices in the battery
      1. the standard approach to voices is the four-part harmony approach
      2. soprano (the highest) → alto → tenor → bass (the lowest)
   C. have the type of sound for the style we are engaging
      1. Latin show—tenors function maybe as timbales?
      2. Jazz/swing show—tenors function maybe as toms in a drum set?
      3. The instruments you have available in both the battery and front ensemble will affect what you might or might not want to do with your multi-tenors in terms of their orchestration, and thus the consideration of their tuning.

II. Basics:
   A. Always take the time to allow your tenor heads to settle
   B. Always tune up your tenor head's pitch slowly and carefully
   C. Always make certain that each head is in tune with itself.
1. Make sure that the pitch near each tension rod is consistent around the drum. Try and tap about an inch or so from the rim so you get a “truer” sound when tuning. Avoid playing in the middle of the drum.

2. You can use a stick or mallet when tuning. Strike the drum once and “get” your pitch, then check the other tension rods—one at a time. You can also use this approach when checking drums on the other sets of multi-tenors you are tuning.

3. **Tuning tip:** try stepping away from the multi-tenors and listening to how they sound:
   a. Have other section members play on the drums as you listen
   b. Have the other section members play down the drums from top to bottom. How do the intervals sound?
   c. Have the other section members play each drum and compare that drum from set to set. For example, have each player play drum #1, then #2, etc.
   d. And, of course, listen to how the tenors sound within the battery

4. It’s generally better to tune outside and in a quiet area. Remember, you will do most of your playing outside, so the sound you wish from your multi-tenors should be addressed in that same environment.

5. When tuning a tenor head, make sure you **cross-tension tune:** when you tune one tension rod then go directly across to its opposite and tune it.

6. **Try to avoid** tuning either clockwise or counter-clockwise when tightening your tension rods.

7. It’s generally better and easier to tune up the pitch then it is to tune it back down. Please keep that in mind as you tighten each tension rod.

D. Always make certain all your multi-tenors are in tune with each other.

E. Always make certain that the multi-tenors are tuned so that their voice (the range from top to bottom drum or vice versa) falls between the snares and bass drums and is not too close to either segment’s voice such that it gets lost within the marching percussion ensemble.

F. **Try and tune your multi-tenors every day.** Having drums that are “out of tune” most certainly affects what you are hearing when you rehearse with the percussion section and with the musical ensemble. This same concern should apply to the other battery instruments as well.

### III. How Do I begin tuning?

A. Find a model for your tuning scheme you like and that sounds good to you:
   1. college drum line
   2. drum corps
   3. audio-visual resources

B. Try one of the more frequently used tuning schemes:
   1. Major 2\(^{nd}\) between drums 4 & 3 and Minor 3rds between the rest of the drums ascending from 3 – 1.
   2. Minor 3rds between all of the drums ascending from 4 – 1.
   3. Major 3rds between all of the drums ascending from 4 – 1.

If you are unfamiliar with **intervals (the distance between two pitches),** ask your band director or percussion instructor. It’s never really too early in the process to begin developing your ear and learning the **basic intervals.** You might also try consulting an introductory timpani book for guidance on intervals.
IV. The Gock/Accent Drum:
A. Some drumlines march a set-up with 1 or 2 gock/ accent drums.
B. A typical multi-tenors set-up would involve 5 drums with the 5th drum being the gock/accent drum. Typically these are 6” drums.
C. These are drums that are used for accents, effects, and to provide different paths/possibilities for the arranger to take musically.
D. Tune the gock/accent drum(s) so it is higher than drum #1 and has a distinct presence within your tuning scheme, but not so high so that it loses any ability to project and be practical.

And please remember:
A. Always have your ears open and be willing to listen.
B. Try and understand what the multi-tenors’ role is within the marching percussion ensemble:
   1. Remember: choir of voices
   2. The multi tenors are the middle voice, the alto and tenor in the choir of voices: soprano→alto→tenor→bass
C. Try and understand the style of music your section/band is playing and what it asks of the multi-tenors.
D. Seek out performing ensembles that are well-respected and listen to what it is they are doing. Good models make for a good place to begin in learning how to tune your multi-tenors. Also, observe and pay attention to the way your band director tunes the winds in concert band, how wind instruments are tuned in general.
E. As you begin to become more comfortable with the tuning process, then you can begin to develop your own sense of what sounds and works best for you. This is analogous to the idea in writing of finding your own voice.
F. Don’t restrict yourself to tuning the multi-tenors only:
   1. Think about the process of tuning the other instruments in the marching percussion battery.
   2. Think about the process of tuning your concert percussion instruments, particularly the timpani
G. Ask lots of questions: Whenever you have the opportunity, ask an instructor, director, clinician, whoever is available about how it is they tune their multi-tenors, all their instruments.

H. You learn by doing. So, go ahead and do.

Neal H. Flum is currently the Associate Director of Athletic Bands at the University of Alabama where he is also the director of Athletic Pep Bands and the marching percussion program. As a performer, Neal was a member of the 1982 Spirit of Atlanta and the 1983 Blue Devils Drum and Bugle Corps. He was a staff member of the 1992 Boston Crusaders Drum and Bugle Corps and that same year was a member of the percussion staff of the Macy’s Thanksgiving Day Parade All-Star Drum Corps. He was the creator and director of the Athens Percussion Festival (1989 – 2000) and the co-founder of the Alabama Chapter of PAS Day of Percussion (1994), as well as the Chapter President from 1994 – 1996. Neal is an endorser/clinician for Evans Drumheads, Grover Pro Percussion, Innovative Percussion, and the Pearl Corporation. He is also a staff member of Thom Hannum’s Mobile Percussion Seminar.

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ADAMS
Tuning Marching Bass Drums... Articulation with Tone

by Jim Casella

Introduction

In modern rudimental percussion ensembles, tuning the bass drum section can be an intimidating process increasing demands placed on modern bass drum sections, the method in which the drums are tuned play important role in the overall sound of the ensemble. The most important factor is that the bass drum sect provide a comfortable blend and support to the entire ensemble, whether it's a marching band, drum corp indoor percussion ensemble.

I am frequently asked the question of how the bass drums are tuned for the Santa Clara Vanguard. My answer generally very simple, and I will spend a good portion of this article explaining the details of how we tune our basses. Please note that there are different styles of tuning, and the style that we choose is one that supplies ample muffling for clear articulation, while still allowing the drum to resonate with a good tone. Other methods supply less resonance but may create a bit more "punch". One other consideration when tuning your bass will be the venue in which they will be played in. Indoor drum lines are becoming very popular, and some needs to be taken in tuning and muffling the drums so that they are not too boomy inside an auditorium or gymnasium.

Purpose of this article

The intent of this article is to supply a simple reference to percussion instructors, band directors, or player may need to give their basses a tune-up (no pun intended). The methods discussed are certainly not the method of achieving a well-rounded bass drum sound. Other methods have proven successful too, and it encouraged to experiment with what works best for your individual needs. This method, however, will give you a sound which should prove to be not only easy-to-remember, but also long-lasting.

Tools of the trade:

Muffling

Obviously, applying muffling will "dry out" the sound of the drum, so it is not so ringy. In most of today's ensembles a good amount of muffling will be needed. I will discuss muffling techniques a bit more in-depth, but you should be aware that you have a few options when purchasing muffling. I would recommend Pearl Drum Tone Strips (TS14), or some closed-cell style weather stripping which you can purchase at your local hardware store. This closed-cell weather stripping is sometimes sold as "camper shell" weather stripping and purchased in different widths. Other types of muffling may include: fabric taped to the drumhead, air conditioned style weather stripping applied with spray adhesive, or felt strips.

Drum heads

A medium-weight smooth white head is the most commonly used. Most drum companies ship their drums type of head. When purchasing new heads, ask for Remo smooth white ambassadors. These work better as thicker head (such as Emperors or pinstripes) since they have more resonance, however the durability may higher on a thicker or double-layered head.

Grease

Grease is used inside the lug casing on the female threads to ensure good lubrication when tightening the head. Rudimental bass drums have a high amount of tension on them, so lubricating the threads is important. White lithium style grease rather than lubricants such as Vaseline or WD40 which has a tendency to liquefy in weather, therefore not serving its intended purpose. Be careful not to use too much grease, especially of...
threads of the actual tension rod because it can get very messy.

**The SCV tuning approach**

**Placement of Muffling**

The most important aspect in SCV bass drum tuning is the placement of the muffling on the drumhead. A of muffling will be applied directly to the inside of the drumhead. For smaller drums, the circle will be clos center of the head, and for the larger drums, the circle will be closer to the shell of the drum. (See figure 1 reason for this is that the tension is much greater on a smaller drum than it is on a larger one. For exam; the higher tension on an 18 inch drum there is less ring, so less muffling is needed for articulation with to; the muffling is farther away from the shell, it creates a smaller diameter of muffling, therefore making the drumhead less muffled. You will find that using different muffling techniques will be the key factor in achie most drastic differences in the resulting sound of your drums.

**Figure 1:**

**Placement of Muffling on Different Sized Bass Drums**

Drum Pitch Relationships

One question that is often asked is, "What pitches are the drums tuned to?" The answer is that they don't be tuned to specific pitches at all. If you find pitches that work well for you, that is fine and will give you a guideline to tune to. The main importance here is that there is enough separation in the pitch intervals be drums (See figure 2). Certain size drums are capable of different pitch ranges, so you must use good judg not over tighten a bass drum. When tuning the drums, it is best to start with the top drum since it will req most tension. Get that drum to a good-sounding tension (which will most likely be pretty tight), then wor way down the line to get the "intervalic" relationships in check. If you can keep the intervals around maj you will be in good shape. There is no set way to do this, but major thirds will supply a good separation a Another key is to keep the bottom drum on the low side. You’ll notice in figure 2 that the bottom bass is t the interval of a fifth below the drum ahead of it. The reason for this is simply to provide some extra bott overall sound.
Balancing the heads
Another fundamental topic in tuning marching bass drums is maintaining the heads themselves. Similar care must be taken to keep the tension consistent on each portion of the head so no annoying overtones are produced. For the same reason, it is equally important that each head (right and left) is in tune with each other. This seemingly simple concept, yet it is often difficult to get a drum perfectly in-tune with itself. When balancing a single to-lug, be sure the opposite head is muffled so as to not confuse any of those overtones with the head you are concentrating on tuning. It is also helpful to muffle the center of the head slightly with one hand, so you can concentrate on balancing the high overtones found toward the edge of the head.

Changing the heads
When replacing the heads, there are a few tricks to remember. First, before tightening the head, if there is any logo on the head, be sure the player tries on the drum to be sure the logo is straight. This is simply a cosmetic concern. Since the drums/harnesses may sit a little differently on each individual player, it is best to do this on the actual drum. Apply the head to the drum shell, put the rim on, then attach the tension claws very loosely. Once the logo is straight, tighten the tension rods evenly with your fingers and start tightening from there.

Second, be sure to take care in not tightening the drum head too quickly. Bass drum heads take a while to settle in and usually they sound best a few days after a new head has been applied. For this reason, keep the drum head low, and then slowly (over the course of a few days) bring the pitch up to the desired level. This allows the head to settle in to the shape of the drum shell, while maintaining a good, balanced sound. Once you achieve the sound you are looking for, the maintenance of the drums is relatively simple. Just keep the heads in balance and touch up the pitches every so often, and you should get some good mileage out of your bass heads.

**Frequently Asked Questions**

Q: Why do my drums sound so boomy?
A: 1) The drums may be tuned a little too low.
   2) You may need a bit more muffling.

Bass Drums are very boomy in nature, so the more "ring" they have to them, the more boomy they will be. This is causing balance problems with your group, you should probably apply more muffling. However, don't add free materials (pillows, foam, toilet paper, etc.) to the inside of the drum. This deaden the tone more than necessary. If they still seem a little boomy, try raising the pitch a little.

Q: Why do the bass drums sound so dead?
A: 1.) Check for excessive amounts or the style of muffling.
   2.) The pitch on the drum may be out of range (low or high).
   3.) The heads may be too old and worn out.
   4.) You may be using a 2-ply head or one that is too thick.
5.) The mallets may be too small.

Thick bass heads have a tendency to be more dead sounding, which is why it is recommended to use a more weight, single-ply head. Also, the method in which the drums are muffled can affect the tone dramatically above to Placement of Muffling to solve the problem of over muffled drums. Also, don’t add any free mate (pillows, foam, toilet paper, etc.) to the inside of the drum. This will only deaden the tone more.

Q: Why am I getting a big dent in the middle of my drum head?
A: 1.) The drum head may be too loose.
   2.) The mallet head may be too small.

If you like the way the drum is tuned, but you still get the dent, try using a larger headed mallet. If it is still happening with a larger headed mallet, the player may be hitting the drum too hard. If that is not the case, it is recommended to apply a plastic dot (available from Remo) to the playing area of the head to extend the life of the head. A quick-fix for this problem is to repair the damaged area by blowing hot air on it from a regular hair dryer. This will temporarily help the plastic return to its normal state.

Q: How do I decrease the volume of the drums indoors?
A: 1.) Train the players to lighten-up their touch when playing marching drums indoors.
   2.) Add another circle of muffling to the drum head.

Typically, rudimental bass drummers are trained to play with a good deal of volume. The loud range obviously being so important in an indoor setting. The easiest solution is to play lighter. If the drums still seem overbearing, it is recommended to add more muffling. It is best to add a different size circle of muffling (or partial circle), so the different area of the drum head is being muted.

Conclusion
These methods are merely one effective way to approach rudimental bass drum tuning. This process can be time-consuming if you are following the procedures outlined, so be sure you have some time and patience to your bass drums. They will thank you for it, just listen...

BACK

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STEEL PAN TECHNIQUE

STANCE/HEIGHT
- Waist level
  - Don’t bend
  - Should not have to raise shoulders when play on side close to body
- Stand in center of the instrument
- Feet
  - Shoulder width
  - Weight distributed evenly
  - Movement required on Cellos, Guitars, and Basses

STICKS/MALLETS
- Original made of bamboo shafts
- Rubber tipped

PLAYING AREA
- Center of the pitch area
  - Find the “Sweet Spot”
- Fundamental tone is in near the center of the pitch area

GRIP
- Mallets held loosely between the index and thumb
- Hands stay parallel to playing surface
- Use primarily Timpani French Grip
  - Bass Pans use Matched Snare Grip

STROKE
- “Free rebound”
- Don’t force
- NEVER MAKE THE PANS “BARK”
  - This will make them fall out of tune
- Higher notes require more force in order to speak

HAND POSITIONS
- 2 positions
  - “Outside-the-bowl” – Used for notes on the half of the drum closest the player
  - “Inside-the-bowl” – Used for the notes on the half furthest away from the player
STANDARD PANS

LEAD PAN (TENOR OR SOPRANO PAN)
- Soprano voice
- Usually plays the melody
- One Pan with 32 pitches
  - Arranged in a circle of 5ths
- 6 Inches deep

DOUBLE TENORS
- Soprano/Alto voice
- Two tenor Pans
  - Arranged in augmented triads
- 7 ½ inches deep

DOUBLE SECONDS
- Alto voice
- Usually plays harmony or doubles melody
  - Upper register of the chords
- 2 Drums
- Most versatile of the drums

GUITARS
- Alto/Tenor voices
- Sets of 2 or 3 drums
- Rhythm

QUADRAPHONIC
- Alto/Tenor voices
- 4 drums

CELLOS
- Tenor Voice
- Sets of 3 drums
- 21 inches deep

TENOR BASS
- Tenor/Bass voices
- Sets of 4-6 pans
- Rhythm

BASS PANS
- Bass voice
- Sets of 6-9 Pans
PERCUSSION ("ENGINE ROOM")

- Iron
  - Brake Drum
  - Primary Time Keeper
- Drumset
- Congas
- Misc. Percussion
  - Shakers, tamb., Triangles, Cowbells, Spoons, Scrapers, Etc.
HISTORY OF THE STEEL PANS

- Developed from Trinidad and Tobago in 1930’s (twin-Island Nations)
  - Lower class ("Bad Johns")
    - Formed gangs
  - Started with Tamboo Bamboo Bands in 1890’s
    - Made of different sized bamboo sticks
    - Because of “No Drumming” restrictions
  - “Panorama” & Carnival
    - Traditional festivals and competitions
    - Held once a year
    - “Battle of the Steel Drums Bands”
    - Between 30-100 players
    - On moving trailers

**IMPORTANT PLAYERS:**
Elliot “Ellie” Mannette – “Father of the Steel Drums”
Len “Boogsie” Sharp
Ray Holman
Andy Narell
Cliff Alexis
Liam Teague – The “Paganini of the Steelpan”
Winston “Spree” Simon
Tenor (Soprano)

The reason for naming the highest pan of the steelband "tenor" is historical: In the early days, the lead melody was played on a pan with less than ten notes. These notes were bigger than on today's tenors and the pitch was in the tenor range - therefore it was suitable to call the pan a tenor.

As the instrument developed, more notes were put into the tenor to increase its range. The new notes had to be made smaller, thus putting the pan in a higher tonal range. But the name "tenor" prevailed. Today it would be more proper to call it a soprano, which is also the usual case outside Trinidad.

The early tenors (ping-pongs) still had some of their lower notes, such as F# in the middle section, but eventually all the lower notes were moved to the outer ring with the corresponding octaves just inside them. The first "fifths-and-fourths" tenor pans, created by pioneer tuner Anthony Williams, were "spider web" pans with the notes close together and the intersections shaped as a spider-web-like pattern. In 1963 Herman Johnson changed the design by moving the inner notes apart to reduce the acoustic coupling of adjacent notes.

Overview of the Tenor pan
Triple Cello (Baritone)

The triple cello pan is made out of three drums cut at approximately half their length. Each drum has eight or nine notes, with two or three of them in a middle position. The cello is mostly used for lower chords and bass riffs, filling in the bass line.

The notes are chromatically distributed, left to right from drum 1 to 2 to 3. Since the set-up consists of three drums, this layout procedure means that every third semitone will be put in the same drum. This makes the harmonic intervals of the notes in each drum form a diminished chord: B dim, C dim, and C# dim, left to right.

Overview of the Triple Cello pan
Double Second (Tenor)

The double second pan consists of two drums with 15 notes each. The tonal range is almost two and a half octaves in the same range as the double tenor pan. The sound of the double second is, though, a little deeper than the double tenor due to its longer side.

The note layout of the double second seems to be more consistent than for the double tenor. On a chromatic scale, the notes are positioned in drums left-right-left-etc., which means that the most dissonant intervals - the small seconds - are distributed over two drums. The smallest intervals residing in the same drum - the large seconds - are spaced as far apart as possible. For instance, C and D are almost at opposite sides of the left drum.

For the positioning of the drums while playing, the same reasoning as for the double tenor is valid. It is easier to play fast if the stands are turned so that the lowest ends of the tilted drums are facing the player. Therefore, the layout is shown in this fashion.

Overview of Double Second pan, Ellie Mannette styling
Six Bass

The six bass is made out of six whole drums with three notes in each. The tonal range is 18 notes, starting from A1. The Trinidad layout of the six bass is designed to put notes with fourth or fifth intervals in the same drum as often as possible. This is done to make the notes support the harmonical spectra of each other. But it will result in the notes being distributed quite "arbitrarily" over the drums, see the layout figure.

Overview of Six Bass, Trinidad style

Iron is the fusion energy source of the steelbands "engine room".
Iron; brake drums of scrapped cars or trucks, cut bits of "C" beams or any handy piece of steel; but mostly brake drums, because of their shape, size and 'sweetness' of sound.
Iron is played with short steel (metal) rods. It can be carried singly, for one hand playing "on the road" or mounted in a stand (also mobile!) for two handed playing.
However your iron is presented, you begin to have an Iron section in your "engine room" when you have two or more players; Iron men. Without the slightest hint of sexism implied; an Iron woman is by definition an Iron man.
You have no steelband unless you have Iron. A steelband without Iron is unthinkable.

Steelbands and Iron are as synonymous as steelbands and corn-soup, shark and bake, peas and rice, crab and dumplin', curry-goat and roti, souse and black pudding, doubles and runnings, bush-rum and headache.
Steelbands and Iron have a marriage of consent that is so sweet, so inseparable, that it is blessed by every God that man has ever conceived to imagine on this planet.

The colour of sound from a brake drum is just right for Iron. It tinkles, it zings, just with the right pitch.
When the Iron men play their complex, in and out of phase, off-beat syncopation's; it is a shower of sound that reaches around you. It grows to call you, to secretly invade you brain. You get locked into the beat, you twitch in sync, your feet behave as strangers until you understand they are yours and you must follow their steps, step, step. Ting-a-ling, step, step, step. Ting-a-ling, step, step, step. Oh-Yoooooo! step, step, step.
Yes, it will never, ever, let you go!

Tick-e-der tick-e-dee Tick-e-der tick-e-dee
Tick-e-der tick-e-dee Tick-e-der tick-e-dee
Tick-e-der tick-e-dee Tick-e-der tick-e-dee
Tnag - Tnag - Tnag - Tnag - Tnag - Tnag - Tnag - Tnag - Tnag! ...

Being an Iron man is a position of great responsibility within a steelband. A good Iron man holds tremendous respect from all. The question of whether to be or not to be an Iron man never really arises. Either you have failed, or you're an Iron man.
The Iron holds the timing and spins the engine. Without distraction to the desired efforts of the team who make up the rest of the "engine room", Iron men are something special. In its own right; their rhythm is a counter-weaving art-form of sound. An Iron man requires an innate dexterity; an affection for steel that is close to an affliction; a constitution that does not recognise boredom or thresholds of pain;
an unerring sense of timing; a stamina that is almost inhuman. Tradition has it that once a band is moving "on the road", the Iron never stops!

To a bystander at carnival "When ya hear de iron, ya does know a' steelband commin'!"
# TIMPANI TEST SHEET

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TIMPANI TUNING TEST SHEET

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Posture:  1   2   3   4   5

Technique/Process:  1   2   3   4   5   6   7   8   9
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Playing Area:  1   2   3

Pitch:  1   2   3   4   5   6   7

TOTAL: ______/25
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MALLET SIGHT READING TEST SHEET

TEST # _______
NAME: ____________________________

STANCE/BODY POSITION: 1 2 3 4 5

GRIP: 1 2 3 4 5 6 7

STROKE: 1 2 3 4 5 6 7
*PISTON STROKE!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!

PLAYING AREA: 1 2 3 4 5

NOTES: 1 2 3 4 5 6 7 8 9 10

RHYTHM/TEMPO: 1 2 3 4 5 6 7 8 9 10
*HINT: Keep going if you miss a note

ROLLS: 1 2 3

DYNAMICS/PHRASING: 1 2 3
*Think of how you can make it musical even if no dynamics are written

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SNARE DRUM SIGHT READING TEST SHEET

TEST #: 
NAME: 

STANCE/BODY POSITION: 1 2 3 4 5

GRIP: 1 2 3 4 5 6 7

STROKE: 1 2 3 4 5 6 7 8

PLAYING AREA: 1 2 3 4 5

RHYTHM/TEMPO: 1 2 3 4 5 6 7 8 9
10 11 12 13 14 15

ROLLS: 1 2 3 4 5

DYNAMICS/PHRASING: 1 2 3 4 5

TOTAL ______/50
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PERCUSSION NOTEBOOK ITEMS

FINAL EXAM = THE NOTEBOOK PORTION WILL BE WORTH 150 POINTS
NOTEBOOKS MUST BE CLEARLY ORGANIZED. ORGANIZATION OF THE
NOTEBOOK (INCLUDING MARKED DIVIDERS) WILL BE WORTH 1.6PTS.
(SUGGESTION: ORGANIZE IT EXACTLY HOW YOU SEE IT ON THIS LIST) BELOW IS
A LIST OF ALL THE MATERIALS THAT SHOULD BE INCLUDED. EACH ITEM IS
WORTH 2 POINTS.

THIS MUST BE TURNED IN ON FRIDAY, JUNE 3RD AT THE BEGINNING OF
THE PERIOD SO THEY MAY BE RETURNED TO YOU BY YOUR SCHEDULED
EXAM PERIOD. LATE NOTEBOOKS WILL NOT RECEIVE FULL CREDIT. PLEASE
INCLUDE THIS SHEET IN THE BEGINNING OF YOUR NOTEBOOK. DO NOT FORGET
to put your name on it.

NAME: ________________________________

Mallets

1. Mallet Technique packet (2 pages front and back)
2. Keyboard mallets sheet (Pearl Educational Resource Library)
4. Scale Template with circle of fifths
5. Blank scale testing sheet
7. Blank Mallet sight reading sheet

1. Playing test #1 + scoring sheet
2. Playing test #2 + scoring sheet
3. Playing test #3 + scoring sheet
4. Playing test #4 + scoring sheet
5. Bb scale scoring sheet
6. F scale scoring sheet

Snare Drum:

1. Snare Drum Technique packet (4 pages)
2. Parts of the snare drum
3. PAS Rudiment sheet
4. Blank snare testing sheet

1. Snare Test #1 + scoring sheet
2. Snare Test #2 + scoring sheet
3. Snare Test #3 + scoring sheet
Timpani:
1. History of the Timpani Packet
2. Timpani Technique Packet
3. Blank Timpani Test Sheet
4. Blank Timpani Tuning Test Sheet

1. Timpani Test #1 + scoring sheet
2. Timpani Test #2 + scoring sheet
3. Timpani Tuning Test + scoring sheet

Cymbals:
1. Story of cymbals
2. Cymbal technique packet
3. Special effects of Crash Cymbals
4. Playing Bass drums and crash cym together
5. Cymbal Rudiments
6. Blank Cymbal Test Sheet

1. Cymbal Test #1 + scoring sheet

Steel Pans
1. Steel Drum Technique packet (2 pages front and back)
2. Ranges (2 pages front and back)
3. Iron Page
4. History (2 pages front and Back)

Drum-Set
1. Free Rebound on Cymbals
2.

TOTAL:  /150
TIMPANI TEST #2

TEST DATE: Monday, April 25th

Allegro (♩=112)

A-D

2

mf

p

mf

f

p

f

Audition Etudes

*Note: Do not worry about muffling yet. We will discuss that for the next etude.

TIMPANI TUNING TEST:

DUE DATE: Tuesday, April 12th

This will consist of you being able to tune to a pitch without using the tuning gauge. You will receive a pitch from a mallet instrument and you must use the proper technique to tune. You must know what drum that note should be played on as well. The tuning gauges will be covered so learn to use your ears. Review the section on how to tune in your timpani packet. If you have questions please ask ahead of time.
Timpani Test #2 - muffling

+ Tuning Test

Tuesday, March 7th
# Snare Test #1

1

Snare Drum

R.......................... L..........................

3

S. D.

R.......................... L.......................... R

# 2

Snare Drum

R.................... L R L R L R L R............... R L R L R L R L R L

3

S. D.

R.......................... L.......................... R

# 3

Snare Drum

R.......................... R..........................

3

S. D.

R........... R...........
SNARE TEST #2

\[\text{Audition Etudes}\]
Mallet Test #5

Due: Wednesday April 20th

Allegro

Next Scale: B Major
Due: Wednesday April 13th
Mallet Test #4

Test date: Friday, March 18th

To be played on xylophone

Allegro con brio

Melodies

With Dotted Eighths And Sixteenths

Next Scale Test: E Major

Test date: Friday, April 1st
Mallet Test #3

Melodies in 6/8 Time

Moderato

*Note: Sight Reading will also be included on this test*
MALLET PLAYING TEST # 2

I will be looking for all the fundamental techniques and methods that we have discussed, such as:

- Grip
- Piston Stroke
- Movement behind the instrument
- Playing area
- Stance
- Roll Speed
- Correct notes and rhythms
MALLETT PLAYING TEST #1

I will be looking for all the fundamental technique and methods that we have talked about such as:

-Grip
-Piston Stroke
-Movement behind the instrument
-Playing area
-Stance
-Roll Speed
-Correct notes and rhythms
MALLET PLAYING TEST #1
January 18th, 2006

1. Play the Bb Concert scale 2 octaves
   a. Remember to use the scale template
   b. Focus on correct techniques
2. Play etude below
   a. Focus on piston stroke, phrasing, stickings, etc.

Allegro (♩= 176)