

Running head: PEDAGOGICAL CONCEPTS

PEDAGOGICAL CONCEPTS FOR MARCHING PERCUSSION

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE  
OF MASTER OF MUSIC EDUCATION: STUDIO PEDAGOGY EMPHASIS

THOMAS JOHN FORD

UNIVERSITY OF WISCONSIN-STEVENS POINT

MAY, 2019

### Abstract

This document serves as a guide for recent music education graduates who are put in the position of having to teach marching percussion to students who have joined the marching band, specifically in the drumline. To have a well-rounded understanding of the drumline, teachers will need to know the instruments of the drumline, and the associated sticks and mallets. This document also discusses pedagogical concepts for all of the instruments, including playing techniques required to achieve a balanced sound throughout the ensemble, and how to properly care for marching percussion equipment.

*Keywords: marching percussion, drumline, battery, snare drums, tenor drums, bass drums, crash cymbals*

**Table of Contents**

Abstract	2
Acknowledgements	5
List of Figures	8
Introduction	9
Chapter I: Marching Percussion Equipment	12
Snare Drums	12
Tenor Drums	14
Bass Drums	16
Crash Cymbals	17
Other Equipment	18
Chapter II: Pedagogical Concepts for Marching Percussion	21
Posture	21
Playing Positions	21
Grips and General Playing Techniques	25
Stroke Types and Dynamics	31
The Exercise and Technical Development Program	32
Timing Strategies	37
Chapter III: Marching Percussion Care and Maintenance	39
Changing and Replacing Heads	39
Repairing Broken and Loose Drum Equipment	40
Cymbal Straps	42
Cleaning and Storing Equipment	43

Conclusion	45
References	46
Appendix A	49

## ACKNOWLEDGEMENTS

There are so many people who I want and am obligated to thank for helping me in this whole process of graduate school and writing my thesis.

I want to start out by thanking Sean Connors for allowing me to audition into the Department of Music at UWSP in the Spring of 2013. Though we never got a chance to actually work together as student and teacher, I am humbled by his allowing me the chance to prove myself as a musician at the graduate level.

I would also like to thank Dr. Patricia Holland and Dr. Patrick Miles for their guidance throughout my graduate career by serving as my graduate academic advisors, instructors, and for also awarding me the graduate assistantship, without which I would not have been able to attend graduate school.

I want to offer my gratitude to Dr. Brian Baldauff and Dr. Michael Butler for serving on my thesis committee.

Thanks also go out to Mrs. Monica Anderson for being my assistantship supervisor. She was without a doubt a delight to work for, and became more than just a supervisor. She became a friend in the music department, and one that I will cherish.

I also want to thank the rest of my teachers at UWSP: Dr. Brendan Caldwell, Dr. Patrick Lawrence, Dr. Charles Young, Dr. Adam Rappel, and Mr. Ryan Korb.

At Illinois State University, I would like to extend my deepest gratitude to Dr. David Collier, Dr. Ben Stiers, and Mr. Derek Boughey for writing letters of recommendation on my behalf when I was applying to graduate schools. Thank you for believing in me when others did not.

To Dr. Stewart Goldman, Dr. Tadanori Tomita, Dr. William Hartzell, Wendy Stellpflug, the staff at Ann and Robert H. Lurie Children's Hospital in Chicago, and the staff at the Proton Center in Wheaton, Illinois: It is quite simple. I would not have had a shot to finish this degree if you hadn't literally saved my life in the winter of 2014. From the bottom of my heart, I extend my deepest thanks and love to all of you.

To Dr. Nathalie Azar at the University of Illinois at Chicago, a tremendous thank you for restoring my eyesight.

To all of my dear friends, including my second family at Camp One Step, there are simply too many to thank individually. However, there are four who I would like to recognize.

To Aaron Von Qualen: Thank you for always pushing me to strive to finish this paper. You have no idea what this means to me.

To Jarryd McGuire: Your friendship during those months of surgeries and radiation therapy and beyond are a true testament to the type of person I can only aspire to be some day.

To Mike McAdam: You are my inspiration, my best friend, and a brother. Thank you for always being in my corner.

To my late friend Chris Levesque: Taken from this world way too soon, he helped me balance out my life by convincing me to not live life too seriously, while at the same time always asking "So how's that thesis coming?" every time we got together. I miss him each and every day, and dedicate the completion of this project in his memory.

I would like to thank my extended family, both the Fords and the McNamaras, for their love and support, especially when I relapsed in 2014.

To my family friends Tom and Melanie Deroche: Thank you for being familiar faces in a place that was so far from home.

Finally, to the four most important individuals in my life, my parents James and Mary, my sister Maren, and my dog Boomer: I love and cherish you all. Thank you for always being by my side.

## LIST OF FIGURES

Figure 1.1	15
Figure 1.2	18
Figure 1.3	20
Figure 2.1	22
Figure 2.2	22
Figure 2.3	22
Figure 2.4	23
Figure 2.5	24
Figure 2.6	24
Figure 2.7	24
Figure 2.8	25
Figure 2.9	26
Figure 2.10	26
Figure 2.11	26
Figure 2.12	27
Figure 2.13	27
Figure 2.14	27
Figure 2.15*	28
Figure 2.16	29
Figure 2.17	29
Figure 2.18	30
Figure 2.19	31
Figure 2.20	33
Figure 2.21	34
Figure 2.22	35
Figure 2.23	36
Figure 2.24	36
Figure 3.1**	39
Figure 3.2***	42
Figure 3.3***	43
Figure 3.4***	43

\*Used by permission by TapSPACE Publications

\*\* Used by permission by Pearl Corporation

\*\*\* Used by permission by Row-Loff Productions

## PEDAGOGICAL CONCEPTS FOR MARCHING PERCUSSION

**INTRODUCTION**

Upon graduating from college, when band instrumental music education majors enter into their first teaching job in a high school program, they are most likely going to have to teach marching band. These programs may or may not have proper funding to hire additional instructional staff for their marching season, so they may end up teaching marching band all on their own.

Marching bands have many possible roles within a school program, and the new director may or may not have substantial marching band experience. These bands can march in parades, perform halftime shows or serve as a pep band at athletic events. Regardless of the role of the band at any of these events, the marching percussion section must provide a musical color, as well as clear pulse and tempo for the rest of the band to follow. In order to facilitate this, the drumline requires clear instruction. Additionally, the drumline develops considerable esprit de corps as they perfect their execution, and this spirit can spread to the rest of the band, resulting in improved teamwork, a valuable life skill.

The marching percussion section consists of two segments, the battery (commonly called the “drumline”) and the front ensemble (or “pit”). The drumline is the segment of the marching percussion section that actually marches on the football field. The front ensemble consists of keyboards (i.e. marimbas, vibraphones, xylophones, and glockenspiels), timpani, suspended cymbals, concert bass drums, and other concert percussion instruments on the front sideline. This document will focus solely on the battery section.

This document proposes solutions to common questions and issues faced by those instructing marching percussion:

1. How does marching percussion fit into a comprehensive high school percussion curriculum?
2. What instruments and equipment are necessary to prepare the students for a successful drumline experience?
3. What pedagogical concepts can be applied to the marching percussion section in order to facilitate student learning and success?
4. How should members care for and maintain the instruments and equipment?

Although marching percussion is a small part of the overall percussion experience, it gives students the opportunity to perform with instruments that would normally not be used in traditional concert band or percussion ensemble. However, marching band and concert band are not as different as people may think. While these instruments may be constructed and sound different, the foundational concert band concepts such as dynamics and musicality remain the same in marching band.

Many of the techniques through the drumline experience can be adapted to concert percussion as well. For example, playing marching snare drum requires the same mechanics of wrist and arm rotation as when playing a shake roll on tambourine. Playing on tenor drums is a lot like playing tom toms or timpani in concert band. The same type of wrist motion is used, and players maneuver around the drums the same way while striking the heads in similar spots. Playing marching bass drum helps students learn the importance of how to properly subdivide rhythms in a moving musical line, and uses the same wrist and arm rotation as playing the inside two mallets when playing four-mallet keyboard.

Wayne Markworth is the former director of the Centerville Jazz Ensemble (the marching program in Centerville, OH). In his book *The Dynamic Marching Band*, he states that concert

band is the heart and foundation of a balanced and total band program (Markworth, 2008).

Because of this philosophy, marching percussion should be taught in marching band with the same rigor as concert percussion is taught in concert band.

## **Chapter 1: Marching Percussion Equipment**

The success of the students in the marching percussion section partially relies on fully-functional, high-quality equipment. Providing access to this equipment is the responsibility of the school or institution and should be required for learning. This chapter will provide details for each subsection of the drumline and include information on instruments, carriers, stands, and sticks and mallets.

### **Snare Drums**

Marching snare drums are built using multi-ply wood shells of maple or birch. Some manufacturers also include synthetic materials such as carbon fiber to further decrease the weight of the drum. The heads are tightened with metal tension rods that feed through a metal counter hoop, and into metal lugs in the drum (Cook, 2006). These drums are equipped with a snare throw-off lever and snare adjustment knob to adjust the tightness of the snares.

Sizes for contemporary marching snare drums differ. Larger drums are normally 14 inches in diameter by 12 inches in depth. Smaller drums are 13 inches in diameter, and 11 inches in depth. Consideration for sizes should be made when ordering drums as this will impact the sound and weight of the instruments. Bands that perform indoors for much of their season might consider purchasing smaller drums due to their softer volume. Programs with smaller students, such as those at a junior high school, should also consider smaller drums when adding to their inventories.

It is recommended that students do not place the drum on the ground. Teachers should make sure that protection of the bottom counter hoop, head, and snare guts is possible. Recently the companies Yamaha and Pearl have added these protective measures to their snare drums. Yamaha uses small black rubber feet, while Pearl has incorporated the use of small curved metal

bars on the bottom of their counter hoops to protect the integrity of the drums. Even with feet or other protective elements, the heads could be punctured by debris on the ground. Instead, drums should be placed on stands or laid down on their sides, assuming the drums have covers.

The use of sound projectors for snare drums has become popular. These sound projectors, commonly referred to as “scoops” are curved pieces of plastic, attached to the bottom rim of the drum by Velcro, amplifying the snare drum sound. (Dean, 2012).

Batter, or playing side, marching snare drum heads are manufactured using a mixture of high tensile fibers. Competing companies have different proprietary names for this composite, each with a slightly different response and sound. Kevlar drum heads provide high-tension durability and an articulate, crisp sound. Batter heads made from a mixture of fibers, including Kevlar, have come into favor as they provide a softer feel and slightly warmer sound. Infrequently used today, plastic batter heads provide a lower pitched, less articulate sound.

Snare, or bottom side marching drum heads should be thin to medium in weight for a sensitive snare response. Special high-tension marching band or corps-style snare heads should be used instead of regular concert snare heads. Regular concert snare heads can break under high tensioning or stretch too much (Cook).

Marching snare drum sticks are heavier than concert snare sticks and more durable due to the increase in thickness. A variety of length, diameter, and weight can be found depending on the manufacturer. The bead, or tip, of the stick can be either wood or plastic and made in a variety of shapes with round, acorn-shaped, or teardrop-shaped being the most common. Both sound and feel are affected by the shape of the bead. Plastic beads are more susceptible to break; wood beads are more durable.

A variety of other implements are commonly used on marching snare drums. These include wire brushes, bundles of dowel rods, felt mallets, and many others. To change implements during performance, players will need stick bags attached to the shells of the drums. These can be purchased from most percussion suppliers and attached with the included Velcro tabs.

### **Tenor Drums**

Sets of contemporary tenors usually have four primary single-headed drums. These are referred to by the numbers one through four, with one being the highest in pitch and four being the lowest. There are two configurations that are commonly found for the drum sizes. From drum one to drum four, the drum sizes for small sets of tenors are 8, 10, 12, and 13 inches. For larger, full size tenors, the drums are 10, 12, 13, and 14 inches from smallest to largest (Cook). The bottom of each drum has an uneven cut to help project the sound to the audience.

Tenor drums can be purchased with either one or two extra drums mounted inside the standard four, closer to the player. The drums are either 6 or 8 inches in diameter and often referred to as “spock” or “shot” drums. These drums are to be tuned even higher than drum one. They are used primarily for effect rather than tonalities in drumline music because of their high pitch (Bachman, 2002). Depending on how many drums complete the set, this configuration can be called quads, quintets, or sextets. Figure 1.1 shows a complete set of tenor drums with one spock drum, otherwise called a set of quintets.



*Figure 1.1: A set of "quint" tenor drums*

Similar to snare drums and bass drums, tenor drums are constructed from wood shells with a durable natural finish or plastic or cortex covering. They also have a metal counter hoop, but no bottom hoop due to the lack of a bottom head.

The counter hoops are tightened with the same type of metal tension rods into the lugs on the drum as snare drums. However, due to the difference in size between drums, the number of lugs and tension rods varies. 6-inch spock drums typically have four, 8-inch drums have six, 10 inch drums have eight, and 12, 13, and 14-inch drums have ten each.

Tenors have a plastic trim that is applied to the bottom of the drums to stave off any damage to the shell. Because of the uneven cut of the shell, without the trim the drums could be subject to significant damage (Cook). Most models of tenor drums do not include this trim as standard equipment when purchasing, and will need to be purchased separately.

Tenor heads can come in single-ply or double-ply plastic. Both have their advantages and disadvantages. Single-ply heads can offer a clearer tone than the double-ply, but because of the thin layer of plastic, are more susceptible to breaking. The double-ply heads are recommended due to their increased durability and ability to hold their pitch longer after tuning.

Similar to snare drums, there are a variety of different sticks and mallets that can be used on tenor drums. The two most commonly used general mallets have either a metal or wooden

shaft. These mallets have either nylon, hard rubber, or wooden heads, which can come in either a disc or bead shape. The disc heads with aluminum shafts are heavier and produce a more resonant sound, while wooden beads produce a lighter sound giving the drums a sound similar to timbales. For softer dynamics, mallets with soft felt heads, generally called “puffies”, may be used (Lynch & Brown). These mallets are less articulate, and used in softer passages of music.

### **Bass Drums**

Sets of three or more pitched bass drums have become standard in modern marching bands. Bass drums are constructed with multi-ply wood. They come with wooden counter hoops and metal tension lugs and fastener claws, which vary in number because of the size of each drum.

Plastic stick mounts can also be purchased and attached to the top of the drum for the player to store mallets when not in use. This equipment facilitates mallet changes during performance. These will not come as standard equipment with the drums and must be purchased separately. The counter hoops of the drum will require metal rim protectors to prevent any unwanted damage to the rim of the drum (Cook). These rim protectors are little pieces of metal fastened to the top portion of the hoop that are used for rim clicks. These are also not standard equipment and need to be purchased separately.

Quality bass drum heads come in single and double-ply, similar to tenor heads. It is recommended to purchase double-ply due to their increased durability. A more articulate and focused sound can be achieved by adding muffling to the heads. Ideally, one would attach this muffling to the back of the heads so it will be out of view from the audience and less impacted by rain or harsh weather. Foam or weather stripping are suggested muffling materials, and can be

attached with glue. Some companies manufacture their heads with pre-glued strips of foam around the perimeter of the head, eliminating the need to add external muffling.

Only felt-headed mallets with wooden shafts should be used. They should be in sizes graduated according to the size of the drum heads, meaning that the mallets with the smaller heads should be used on the smaller drums, and the larger headed mallets should be used with the larger drums (Cook). As with tenor drums, less articulate, or “puffy” bass drum mallets can be used for softer playing and other effects.

### **Crash Cymbals**

Made from an alloy of copper, silver, and tin, popular sizes used for pairs of cymbals are 16, 18, 19, 20, or 22 inches (Lynch & Brown). Sets of cymbals can be made for outdoor use in marching band and drum corps, but cymbals manufactured specifically for symphonic or orchestral use might also be used for their superior sound quality (Cook). Band directors should take into consideration the weight of these instruments and the demands placed on the performers related to music and movement before choosing sizes to order. 18 and 19-inch cymbals are suggested for most high school students, but could be smaller, depending on the demands.

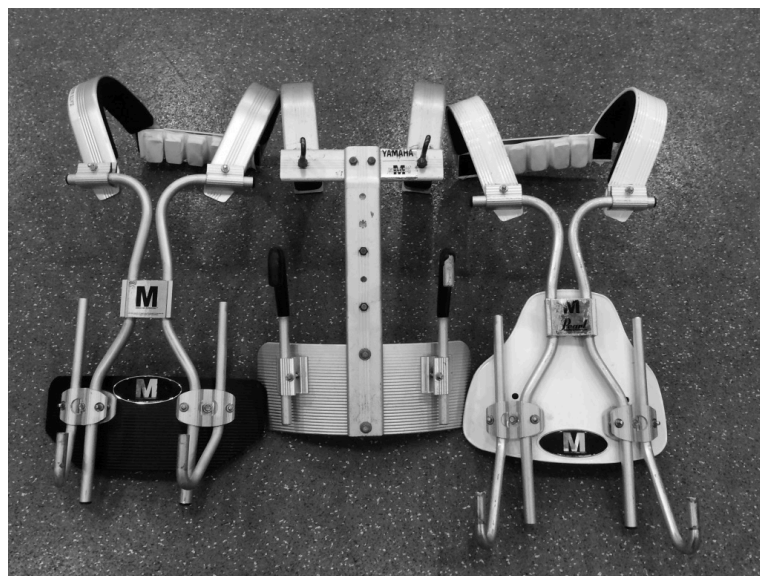
Crash cymbals should only be used with black leather straps and pads. Occasionally cymbals pads will come with straps and pads made from sheepskin, or other “fluffy” material, but they will dampen more of the cymbal vibrations than the leather ones.

Additionally, students should wear gloves when playing the crash cymbals. It is important to protect the students’ hands from elements such as the heat, or blistering from the cymbal straps, and also to keep fingerprints off of the cymbals (Lynch & Brown).

Cymbals should be stored and transported in either a heavy-duty padded bag or case. Many percussion stores make these bags to protect cymbals. Many include dividers to provide protection for multiple cymbals. The cymbals should be wrapped in a towel or blanket or even kept in the plastic bags they come in in order to provide a barrier to reduce scratches or dirt build-up.

### **Other Equipment**

Having quality equipment to actually carry the drums in an ergonomically comfortable manner while rehearsing or performing is important. Modern marching drum carriers are made from fiberglass or metal such as aluminum or steel. Typical carrier styles include T-bar, vest, and tube-style models. Recently, companies have added back support and other modifications to ease strain on the player's body and allow agility in movement. Tenor drum carriers, like snare drum carriers, come with J-bar hooks. However, since they are wider and heavier than snare drums, the hook connection is at a wider angle than that of a snare drum carrier. Figure 1.2 shows different styles of drum carriers, specifically the tube and T-bar styles.



*Figure 1.2: From left to right: A tube-style snare drum carrier, a T-bar bass drum carrier, and a tube-style tenor drum carrier*

When rehearsing exercises or music without drill or movement, students should use stadium hardware (stands) for the drums. Stadium hardware is different from concert band or drum set hardware. Stadium stands are made from a lightweight aluminum alloy, making manual transport easy for students, and allowing the entire weight of the drum to be supported on the stand without having to worry about it collapsing (May, 2018).

The stands will save a lot of unwanted and unnecessary stress on the students' bodies. By using them, the students will be able to focus more on the music and technique, and less on their fatigue (Lynch & Brown). As the season progresses and performances start, students can start using carriers and harnesses for rehearsals on the field. However, when working specifically on music without movement, stands can be used if desired (Cook).

For longevity of the instruments, it is important to protect the drums as much as possible. Drums should be covered when not in performance and kept dry. Many drum manufacturers offer high-quality durable covers designed for their equipment. These covers can help protect the drums against inclement weather and unwanted stains or scratches on the shell of the drum. Towels should also be kept on hand in the event of rain or wet conditions. Drum covers can also be homemade to accommodate limited budgets. These covers still need to cover the entire drum and be easy to attach and remove.

The majority of damage that can and does happen to drums occurs during transportation to performances or marching band camps (Cook). To minimize damage to the drums, when they are not in use, it is best to keep them in their high quality hard plastic cases. These cases do not come as standard equipment when purchasing drums and need to be purchased separately. It is not recommended to transport or store drums without cases.

Sticks and mallets also need to be protected. When they first purchase their sticks, students should spiral-wrap their sticks in white electric tape. Snare drummers can decide whether they want to spiral wrap the entire stick or just to the grip point. The wrap goes from the tip of the stick to the grip point for bass drums and tenor drums. This increases the durability of the sticks, leading to longer life and less replacement costs

Drums used in marching percussion require high tension in order to be articulate. This can be accomplished while tuning the drums with a heavy duty key, or “T-key”. The handles on the top of the key are longer, and therefore produce more torque, making the turn easier, reducing the risk of a hand injury (Lynch & Brown). Figure 1.3 is an example of a T-key. Smaller, standard size drum keys will break under the increased stress, and are not to be used.



*Figure 1.3: A high tension drum key or “T-key”*

## **Chapter 2: Pedagogical Concepts for Marching Percussion**

Performers must learn uniform techniques in order for the full potential of the drumline to be realized. If performers stand, march, and play with the same techniques, they will create a unified sound. Uniformity will also lead to greater precision in grip, playing technique, sound production, awareness of time and internal pulse control, and interpretation of the music (Cook).

### **Posture**

The body should be completely upright, but relaxed. The heels should be together, with the feet forming a stable and comfortable base for the player. The knees are kept straight, but relaxed. It is important to not bend the knees, but also important to not lock them. The weight should be balanced and equal on both legs.

### **Playing Positions**

When at attention prior to playing, the sticks should be in a uniform resting position. Snare and tenors place their hands one or two inches above the rim of the drum. For bass drums, the hands should be brought up on each side of the drum away from the head and in towards the rim, keeping the arms parallel to each other. Cymbals should stand at attention with their arms and cymbals at their sides. Figures 2.1 through 2.4 show the position for players of each instrument while standing at attention.



Figure 2.1: Attention position for snare drums



Figure 2.2: Attention position for tenor drums



Figure 2.3: Attention position for bass drum



*Figure 2.4: Attention position for cymbals*

To move from attention to playing position, the sticks are brought out over the drums in an immediate motion. The cymbals move to either a vertical parallel or 45° angle position. This can be done two beats before the musical entrance. Figures 2.5 through 2.8 show the playing position for each of the instruments.



Figure 2.5: Playing position for snare drums



Figure 2.6: Playing position for tenor drums



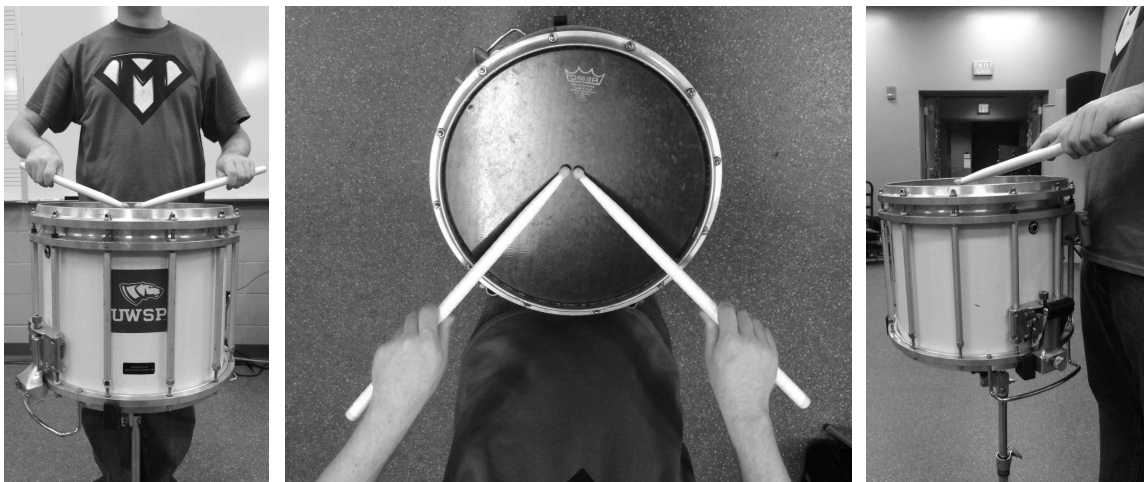
Figure 2.7: Playing position for bass drums



*Figure 2.8: Playing position for cymbals*

### **Grips and General Playing Techniques**

Snare drummers use one of two grips, matched or traditional. Various learning opportunities exist with each grip. With the matched grip, the sticks are held identically in each hand. Grip the stick with the index fingers and thumbs about a third of the way up the shaft from the butt end and gently wrap the rest of the fingers around the stick for support. Figures 2.9 through 2.11 show the proper way to hold the sticks using matched grip.



*Figures 2.9-2.11: Snare drum matched grip*

The stroke is initiated from the wrist in a type of hinge motion, allowing the forearm to follow the natural path of the stick. Teaching the matched grip allows for the transfer of technique to other percussion instruments such as keyboards or timpani, and is easier to learn because both hands are performing the same motion.

When using the traditional grip, the right hand is identical to the matched grip, while the left hand is positioned with the heel of the hand facing the ground in a “handshake” posture. The stick is placed in the crevice between the base of the thumb and first finger, with the thumb and first finger connected close to the distal joint, the joint closest to the fingertip. The stick rests on the cuticle of the ring finger while the middle finger is placed along the side of the stick. The pinky finger is naturally curved under the ring finger and offers support. A rotary motion of the forearm is used to initiate the stroke, similar to turning a doorknob. Figures 2.12 through 2.14 demonstrate the proper way to hold sticks using traditional grip.



*Figure 2.12-2.14- Traditional Grip playing position*

Tenor drummers hold the mallets using matched grip and do not make use of traditional grip.

Due to the unique nature of the drums, proper beating areas must be defined. The center of the head is a nodal point and produces a non-resonant sound. The recommended place to strike the head on a tenor drum is about a third of the way from the rim toward the center. This way the drum will produce a clear tone (Bachman, 2002). Figure 2.15 shows the proper places for stick placement and playing zones.

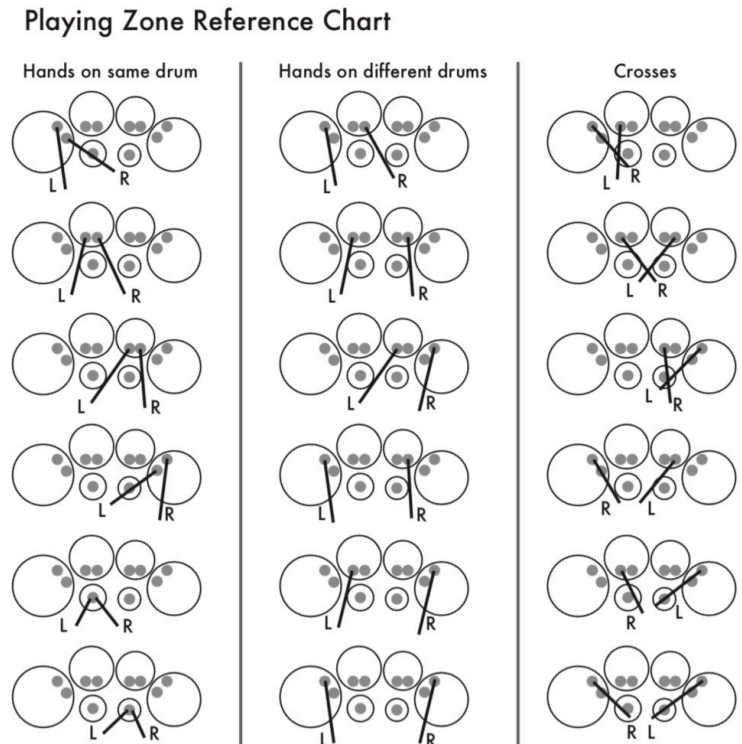


Figure 2.15: Tenor Mallet Placements (Used by permission from Tapspace Publications LLC.)

When playing patterns around the drums, students will make use of what some call the “T’d up position” (McIntosh & Tinkel, 2009). When playing on drum four, on the left side of the tenor set, the left stick is placed slightly further along the head than the right stick to allow for a more comfortable movement around the drums. When playing on the two middle drums (drums one and two), the beads of each stick are right next to each other for a more natural stick position. When playing on drum three on the right, the right stick is placed slightly further along the head than the left stick. This puts the mallets in the shape of an askew “T” for drums three

and four. This is a good analogy for young students to make sure they play in the right areas and move across the drums in a more comfortable way (McIntosh & Tinkel).

A crossover is a technique where the hands physically cross one another and is often used in tenor music. This occurs at the thumbs for a distance of one drum, or at the wrist for more than one drum. This ensures the sound quality of the crossed note is not compromised and has the same sound as the uncrossed note (Collins). Figure 2.16 shows how hand placement should look for a thumb crossover and Figure 2.17 shows hand placement for a wrist crossover.

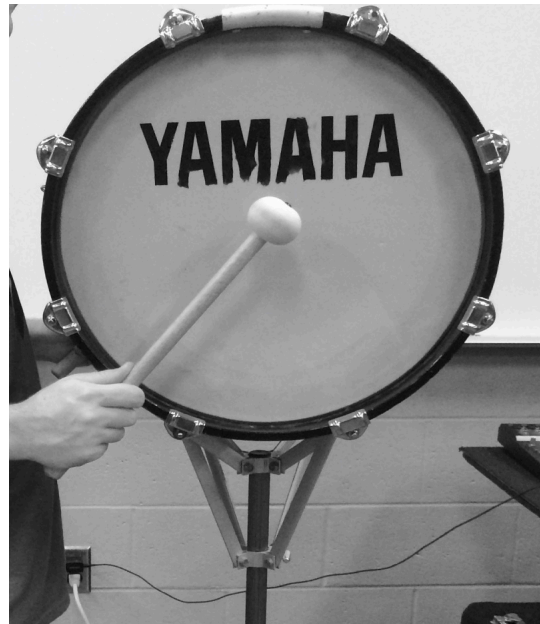


*Figure 2.16: Thumb Crossover*



*Figure 2.17: Wrist Crossover*

Bass drummers grip the mallets using a snare drum matched grip, except the hands are rotated so the wrists are in a vertical position on each side of the drum instead of horizontal. The thumb should be on top of the mallet and should “point” to the mallet head (Alvarez-Calderone, 2007). When holding the mallets in a playing position, the forearm and the mallet should create a 145° angle, as demonstrated in 2.18.



*Figure 2.18: Correct bass drum mallet placement*

To initiate the stroke, the player turns their wrist and forearm in a rotating motion similar to turning a door handle. The stroke should follow a straight line that matches the angle of the mallet, like playing on a horizontal surfaced percussion instrument, such as a snare drum.

To grip the cymbals, first place the hands through the straps up to the wrists and then turn so the palm is facing out and the thumb is pointed down. Next, bring the hand around in an upward motion so the strap rests between the thumb and index finger. Figure 2.19 shows what the cymbal should look like when held by the player.



*Figure 2.19: Proper Crash Cymbal Grip*

The crash cymbals use many different techniques with two of the most common being the flam crash and the orchestral, or horizontal crash. To play a quality flam crash, the cymbals should be held in a vertical position at the height of the student's face. To start the stroke, move the bottom edges away in an upside down "V" and then toward each other as the top edges separate. The bottom edges hit each other forming a right side up "V", and then in one smooth motion, follow through until they are back in an upside down "V" position (Cassella & Ancona, 2003). The orchestral, or horizontal crash uses the same "bottom, top, bottom" technique, but the cymbals are held at a 45° angle, instead of being parallel to the student's face.

### **Stroke Types and Dynamics**

There are four primary strokes: the full stroke, the down stroke, the tap stroke, and the up stroke. The full stroke, commonly called the rebound stroke, allows the stick to freely rebound off of the drum head. The player initiates the stroke with the arm and wrist in a downward motion every time it naturally returns in the up position (McIntosh & Tinkel).

The down stroke can be thought of as a controlled rebound stroke. The beginning of the stroke is the same with the bead starting in the up position. At the moment of impact, the stick is caught using the fingers in order to stop the stick approximately one inch from the head.

The tap resembles a low-height full stroke with the bead of the stick traveling approximately three inches to and from the drum. The up stroke begins from a low height and strikes the drum in a similar manner to a tap stroke, rebounding back to the up position.

It is important to note what stroke types can be used in succession of each other. Full strokes can be followed with other full strokes or down strokes. Down strokes can only be succeeded by either tap strokes or up strokes. Tap strokes can be followed with either other tap strokes or up strokes. Upstrokes can be followed by either down strokes or full strokes.

Dynamics in marching percussion are often defined by stick heights correlating to the distance of the bead from the drum (Cook, 2006). Teachers should present this system at the beginning of the marching season and refer to it throughout for consistency. Typically, a different dynamic is defined every two or three inches the stick rebounds off of the drum. Common dynamics related to heights are: 1 inch for piano, 3 for mezzo piano, 6 for mezzo forte, 9 for forte, 12 for fortissimo, and 15 for fortississimo. For the fortississimo dynamic, the use of additional forearm will be required (Willie).

### **The Exercise and Technical Development Program**

The warm-up and technique program for the drumline should focus on development of uniform technique, dexterity, and hand strength. The exercises employed should include rhythms and stickings that build rudimental techniques through the use of the four primary strokes. Both unison and split parts for the bass drums, as well as single drum and around patterns for tenor drums should be included.

Snare drums and tenor drums often play in rhythmic unison with each other to achieve uniformity in technique and sound production. Bass drums have the responsibility of playing both in unison and split among the different players in the bass drum line. Therefore, the exercise program should be designed to offer the students opportunities to play in unison and practice split patterns. Bass drummers might want to think of their individual split part as a solo that fits within a whole line of music (Cook).

A common exercise is “Eight On A Hand”, where the drums play measures of eighth notes on each hand, alternating each measure. This exercise focuses on developing consistency of motion when using the full stroke, evenness of hand transitions, keeping the tacet hands in a stationary position, and maintaining a consistent sound quality. Figure 2.20 is an example of an “Eight On A Hand” exercise, which includes split bass drum patterns and around patterns for tenors.

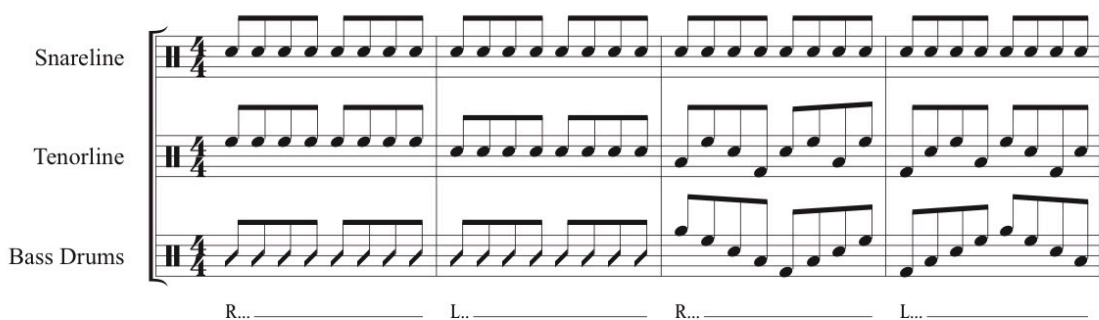


Figure 2.20: Eight on a Hand Exercise

A variation of that exercise, called “Bucks” or “Accent-Tap”, consists of a combination of down strokes, tap strokes, and up strokes to work on differentiating between accents and taps (Cassella & Gusseck, 2008). In these exercises, students should be comparing stroke and stick heights to other members of the section and from hand to hand. They should also listen for the sound quality of both their down and up strokes, making sure the tap and upstrokes are played

with the same velocity into the drums as the down strokes. Figure 2.21 is an example of an accent-tap exercise.

The figure shows a musical score for an accent-tap exercise in 4/4 time. It consists of three staves: Snareline, Tenorline, and Bass Drums. Each staff has four measures. The Snareline and Tenorline parts feature eighth notes with accents (>), while the Bass Drums part features eighth notes with accents (>). The exercise is divided into four measures, each with a right-hand (R) and left-hand (L) part. The Snareline and Tenorline parts feature eighth notes with accents (>), while the Bass Drums part features eighth notes with accents (>).

Figure 2.21: Accent-Tap Exercise

Exercises should include double and triple strokes in each hand. The goal of these types of exercises is to build endurance in performing double strokes in each hand where all of the notes are identical to each other. This can be done as a one-handed exercise using various

syncopated rhythms. Figure 2.22 is an example of an exercise that incorporates syncopated double stroke techniques.

The musical score is written in 4/4 time. The first system consists of three staves: Snareline, Tenorline, and Bass Drums. Each staff contains a series of rhythmic patterns with syncopation and double strokes. Below the first system, there are labels 'R...' and 'L...' with lines indicating the right and left hand strokes. The second system consists of three staves: S. Dr., T. Dr., and B. Dr. Each staff contains a series of rhythmic patterns with syncopation and double strokes. Below the second system, there is a label 'L...' with a line indicating the left hand stroke.

Figure 2.22: Syncopated Double Stroke Exercise

Exercises must also include double stroke rolls. The way to properly develop double stroke rolls is to play a bare rhythm of straight triplets or sixteenth notes and then add double strokes to each note of the rhythm eventually culminating in a long double stroke roll. The exercise should also take into account the type of rolls and roll lengths within the performance

music. Figures 2.23 and 2.24 are examples of triplet and sixteenth note based roll exercises that are used to build long double stroke rolls.

Figure 2.23: Triplet Roll Exercise

Figure 2.24: Sixteenth Note Roll Exercise

### **Timing Strategies**

While the height system is used as a guide to achieving uniformity while developing the technical and listening skills of the players, players should use the system of “listening in” to the center player so they can match that player’s sound. Ultimately, a uniform sound is desired among all players, meaning that if one player’s stick heights are higher or lower, the sound can become unbalanced, and the blend will be lost, as well as the timing of the section (Knowlton, 2010).

Possessing a strong sense of tempo control will be a determining factor in the drumline’s success. To ensure precision and a uniform tempo within the drumline, certain steps can be taken, and reference points given to achieve this.

When working on any music, to focus on the timing aspect, the drumline should all march in place, or “mark time”. This will help the drumline to develop a strong inner pulse, ultimately giving the whole band a more solidified tempo.

When warming up or rehearsing on the field, especially at the beginning of the season, having an amplified metronome on the field will help significantly improve each individual player’s internal pulse, ultimately improving the whole drumline’s internal pulse. As the season progresses, the metronome will need to be used less to ensure the drumline is fulfilling their responsibility of keeping the pulse for the entire ensemble.

Another point of reference for the drumline regarding pulse control will be the drum major conducting at the front of the field when working on show music with drill or standing still. If the drumline watches the drum major’s hands while the drum major watches the feet of the drumline, the tempos will synchronize with each other, solidifying the pulse pocket for the

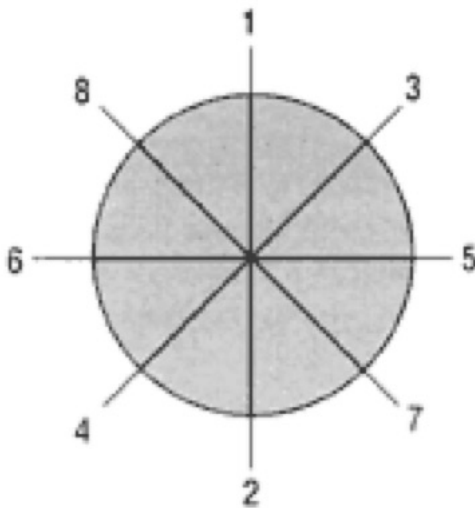
entire ensemble (Hannum & Morrison). This is a solution to “phasing”, a common problem where the drumline plays out of time with other instrumental sections of the band.

Teaching a verbal communication system of counting to the drumline will also help with their listening and timing skills. An example of this is “dutting” one or two measures before a musical entrance. Dutting is the vocalization of quarter note beats to synchronize with the drum major’s hands. These preparation beats ensure precise and unison entrances by the players. This is executed by the players vocalizing “Dut... Dut... Dut dut dut dut...” followed by a clean unison musical entrance.

### Chapter 3: Marching Percussion Care and Maintenance

#### Changing, Replacing, and Tuning Heads

Drum heads periodically need to be changed, and following protocol for this operation will ensure maximum durability of the heads. Materials needed for changing heads include a T-key, lithium grease, and a hand towel that can afford to get dirty. To remove the old heads, using the T-key discussed in Chapter I, loosen the tension rods in a clockwise crisscross pattern and remove from the metal lugs. This is illustrated in Figure 3.1.



3.1- Proper crisscross pattern for tightening and untightening tension rods (Used by permission by Pearl Corporation)

Once the rods are out, remove the metal counter hoop holding the head in place, and remove the head. It is important to take the towel and wipe off the inside of the shell, the bearing edge, and the counter hoops to remove any foreign substance such as wood bits, dirt, or tape that has found its way into the drum. The dirt and old lithium grease will also need to be cleaned from the tension rods.

After setting the new head on the shell, the lithium grease should be applied to the tip of each tension rod. Placing the rods through the top of the hoop and into the metal lugs, the rods

should be finger tightened two at a time, opposite each other (i.e. 3 o'clock and 9 o'clock). Once the finger tightening is complete, it is safe to use the T-key to tighten and tune the heads using the same crisscross pattern across the drum while moving clockwise around the drum (Lynch & Brown, 2006). When tightening the heads with the T-key, tighten the opposite tension rod the same amount as the previous one to maintain an even playing surface.

It is important to remember that tuning drums does not always mean tightening the heads (Markworth), but rather finding a clear and resonant pitch for the instrument and matching it to the others in the section. When tuning snare drums, all of the snare heads should first be tuned to a high resonant pitch. When the batter head is placed on the top, it should be tuned about a perfect fifth above the snare head. When tuning tenor heads, the top primary drum (drum one) should be tuned to the most resonant pitch and tuned down in minor thirds for the rest of the drums.

To tune bass drums, after finding the most resonant pitch on the lowest drum, the rest of the drums should be tuned in the following intervals in ascending order: perfect fifth, perfect fourth, major third, minor third. Another popular tuning scheme is tuning in descending minor thirds, similar to tenors (Cook).

### **Repairing Broken and Loose Drum Equipment**

Charging the students with the responsibility of taking care of their own drums can lead to equipment remaining in good condition longer, and in greater longevity. Constant repairs can quickly drain a band budget and poor functioning equipment can be dangerous to students. One of the primary risks that can arise from poor functioning equipment can include the carrier falling apart while the student is carrying the instrument, causing the student to injure him or herself, and potentially others. Another risk of malfunctioning equipment is severe discomfort

while performing. Some of these injuries can include back spasms and other musculoskeletal disorders (Archer, Boyd & Abulhassan, 2017).

Bass drum rims can crack easily without the metal rim protectors. The rim can be repaired by applying a strong adhesive to the crack and holding the two broken pieces together until the glue dries (Wollwage, 2016). A strong type of glue may also be used to repair tenor trim that might detach from the drums during the season.

Parts can also simply fall off when they are not properly fastened into the instrument. This happens to the tension rods holding the snare head in place on the bottom of the drum. This can happen when snare players forget to regularly check their bottom rims. A simple solution to this problem is reminding the players at each rehearsal to check their bottom rims to make sure their tension rods are secure. It is also wise to have extra tension rods for all of the drums in case one falls out and gets lost.

In order to have a crisp sound on the snare drum, all of the snare guts on the bottom of the drum need to be tuned. When tuning the individual snare guts to their pitch with a screwdriver, while a high pitch is desired, the guts should not be overtightened. If individual snare guts get overtightened with a screwdriver, they can break off from the snare strainer or from below the throw-off lever. The snare guts should be tightened just to the point of contact with the bottom head. When changing snare guts, both the snare throw-off lever and the snare adjustment knob will need to be loosened to take the old snare guts off. After the new snare guts are inserted into the snare adjustment knob, that and the snare throw-off lever will need to be readjusted and tightened to bring the drum back to playing condition.

Another potential issue percussion sections face is with drum carriers. Parts can break off, or become loose and detach, especially when marching for an extended period of time. The

metal plates at the bottom that support the drums are commonly separated from the drum carriers. This can be fixed with Allen wrenches that feed through the padding on the back of the carrier. If a carrier has J-bars that come loose, they can be tightened using a T-key. These should not be overtightened to the point that the threads on the tension rods strip, but tightened firmly so that when the drum is attached to the carrier, it does not fall off.

### **Cymbal Straps**

Cymbal straps will have to be changed from time to time. They can wear down, or the knot can loosen after a while, or the strap can even break if it wears down too much, including when the knot is tied incorrectly. Knowing how to tie a cymbal knot is beneficial. To tie a cymbal knot, first insert the strips on the opposite side of the strap through the hole in the cymbal and lay them flat against the inside of the dome. From there, the cymbal knot just requires some looping and crossing the strips. Figures 3.2 through 3.4 demonstrate how to properly fold the strips over and under each other to create a functional cymbal knot.

1. Pull the strap through the bell and separate the four strips, forming an "x".



*Figure 3.2 Used by permission by Row-Loff Productions (from "Field Level")*

2. Cross each strip over the strap next to it, moving clockwise.



*Figure 3.3 Used by permission by Row-Loff Productions (from "Field Level")*

3. Push the last strip through the loop created by the first.



*Figure 3.4 Used by permission by Row-Loff Productions (from "Field Level")*

### **Cleaning and Storing Equipment**

Cleaning the drums and cymbals is necessary to protect the investment the band program has made. This is especially important before storing the instruments for any period of time, such as at the end of the marching season. When cleaning, the heads need to be taken off of each drum. All of the parts, including tension rods, should be wiped off with a cloth to clean and prevent a build-up of the old lithium grease. Once all of the old lithium grease is off and the drums are all wiped off, the tips of the tension rods will need to be dipped in new lithium grease and screwed back into the drum with the T-key. Because the drums are going into storage for an extended period of time, the tension rods should only be tightened halfway, with the heads being sufficiently taut to keep the rods in place.

Cleaning cymbals will require a towel, water and soap, and cymbal cleaning polish. The cymbal will first need to be wiped with the towel to remove fingerprints. Dirt and spills can be removed with the soap and warm water. Finally, the cymbal cleaning polish will be used on only the cymbals with brilliant finish. Any cymbals that do not have a brilliant finish on them should be wiped with a dry towel.

Making an inventory list at the beginning of the season will help eliminate any confusion as to what instruments are missing during the marching season. At the end of the season, the inventory list should be checked, noting if anything has been damaged or has gone missing.

Although the percussion instruments are going to be stored away for an extended period of time, it is important to remember to check on the equipment periodically to ensure the integrity of the instruments. The instruments should be kept in their high durability cases in a cool dry environment. If kept in a warmer environment, the shells could warp (Cook).

## CONCLUSION

This document was created to help new band directors understand more about the overall aspects of how to educate young marching percussionists. Band directors who may not be percussionists or have the money in their booster budget to hire a percussion instructor now have a comprehensive resource to help themselves become successful marching percussion pedagogues.

Much of this material may seem basic and tedious, but it is important to remember that in order to lead a successful drumline, or any musical ensemble, basics must first be mastered in order for students to advance to a higher level of achievement. Knowing the instrumentation of the drumline, basic pedagogical concepts for each instrument, and repair and maintenance will help lay the foundation for these future directors to lead highly successful marching percussion sections.

## References

- Alvarez-Calderone, J. (2007) *Marching Bass Drum: BASSics*. Accessed 1/4/19 from <http://www.bretkuhnmusic.com/images/MarchingFundamentals.pdf>
- Archer, A., Boyd, J., & Abulhassan, Y. (2017) *Identifying Ergonomic Risk in Marching Percussion*. Accessed 4/22/19 from <http://www.iso.es.info/2017/Papers/Archer.pdf>
- Bachman, B. (2004) *Bass Logic: A Guide to the Art of Bass Drumming*. 1<sup>st</sup> Edition. Tennessee: Row-Loff Productions.
- Bachman, B. (2003) *Rudimental Logic: A Guide to the Art of Rudimental Drumming*. 2<sup>nd</sup> Edition. Tennessee: Row-Loff Productions.
- Bachman, B. (2002) *Quad Logic: A Guide to the Art of Tenor Drumming*. 3<sup>rd</sup> Edition. Tennessee: Row-Loff Productions.
- Baker, J. (2017) *Advice For Your First Drumline Teaching Gig*. Accessed 6/5/18 from [http://www.pas.org/docs/default-source/Career-Development/firstdrumlineadvice\\_baker.pdf?sfvrsn=0](http://www.pas.org/docs/default-source/Career-Development/firstdrumlineadvice_baker.pdf?sfvrsn=0)
- Beck, J. (2007) *Encyclopedia of Percussion*. 2<sup>nd</sup> Edition. New York: Taylor & Francis Group, LLC.
- Blades, J. (2005) *Percussion Instruments and their History*. 5<sup>th</sup> Edition. London: The Bold Strummer, Ltd.
- Buyer, P. (2009) *Marching Bands and Drumlines: Secrets of Success from the Best of the Best*. 1<sup>st</sup> Edition. Maryland: Meredith Music Publications.
- Buyer, P (2006) *Ten Principles for Leading a Quality Marching Percussion Music Rehearsal*. Accessed 6/9/18 from <http://www.paulbuyer.com/article/PBuyer-2006-TenPrinciplesforQualityRehearsal.pdf>
- Cassella, J. & Ancona, J. (2003) *Up Front: A Complete Resource for Today's Pit Ensemble*. 1<sup>st</sup> Edition. Oregon: Tapspace Publications, LLC.
- Cassella, J. & Gusseck, M. (2008) *Fresh Perspectives for the Modern Drumline: Exercises and Music of the Santa Clara Vanguard*. 3<sup>rd</sup> Edition. Oregon: Tapspace Publications
- Collins, B. (2007) *Tenor Pedagogy for Band Directors*. Accessed 1/4/19 from <http://www.bretkuhnmusic.com/images/MarchingFundamentals.pdf>
- Cook, G. (2006) *Teaching Percussion*. 3<sup>rd</sup> Edition. California: Schirmer, Cengage Learning.

Daniels, S. (2012) *Teaching Marching Drum Line Fundamentals to the Percussion Techniques Class*. Accessed 6/22/18 from [http://www.publications.pas.org/archive/May12/1205.20-25.pdf#search="teaching%20marching%20percussion"](http://www.publications.pas.org/archive/May12/1205.20-25.pdf#search=)

Dartmouth Public Schools (2008) *Holding Auditions for Your Marching Percussion Section*. Accessed 10/22/17 from <http://www.banddirector.com/article/marchingchannelcom/holding-auditions-for-your-marching-percussion-section?productguide=311>

Dean, M. (2012) *The Drum: A History*. 1<sup>st</sup> Edition. Maryland: Scarecrow Press Inc.

Fambrough, G. (2010) *Building a Smarter Drumline*. Accessed 6/5/18 from <http://www.pas.org/docs/default-source/SoundEnhancedPdfs/1003-44-49.pdf?sfvrsn=4>

Firth, V. (2016) *Hybrid Rudiments*. Accessed 9/6/16 from <http://www.vicfirth.com/hybrid-rudiments>

Garrett, W. (2017) *Marching Percussion Techniques for Prospective Band Directors: A Course Designed for Instrumental Music Education Majors*. Accessed 2/17/19 from <https://www.digitalcommons.liberty.edu/cgi/viewcontent.cgi?article=1503&context=masters>

Gotry, J. (2017) *Structuring A Marching Percussion Warm-Up Package*. Accessed 12/21/18 from <https://www.banddirector.com/percussion/structuring-a-marching-percussion-warm-up-package/>

Hannum, T. & Morrison, R. (1986) *Championship Concepts for Marching Percussion*. 1<sup>st</sup> Edition. Wisconsin: Hal Leonard Publishing Corporation.

Harris, S. (2007) *Administering a Marching Percussion Section*. Accessed 10/22/17 from [http://www.tsmpp.org/band/percussion/harris\\_administering\\_percussion\\_section.html#Teaching](http://www.tsmpp.org/band/percussion/harris_administering_percussion_section.html#Teaching)

Innovative Percussion. (2018) *Marching Snare Drum*. Accessed 5/29/18 from [http://www.innovativepercussion.com/products/marching\\_snare\\_drum](http://www.innovativepercussion.com/products/marching_snare_drum)

Knowlton, D. (2010) *Cognitive Principles for Teaching the Marching Percussion Ensemble*. Accessed 10/22/17 from [http://www.pas.org/docs/default-source/thesisdissertations/Knowlton\\_Percussion\\_Cognition\\_sflb.pdf?sfvrsn=4](http://www.pas.org/docs/default-source/thesisdissertations/Knowlton_Percussion_Cognition_sflb.pdf?sfvrsn=4)

Kuhn, B. (2007) *Snare Drum Fundamentals*. Accessed 1/4/19 from <http://www.bretkuhnmusic.com/images/MarchingFundamentals.pdf>

Lynch, M. & Brown, S. (2006) *Field Level: The Ultimate Band Director's Guide to Fielding the Ultimate Marching Percussion Section*. 1<sup>st</sup> Edition. Tennessee: Row-Loff Productions

Markworth, W. (2008) *The Dynamic Marching Band*. 2<sup>nd</sup> Edition. Michigan: Isaac Publishing, Inc.

- May, R. (2018) *Stadium Hardware*. Accessed 11/27/18 from <https://www.randallmay.com/stadium-hardware/>
- McClaren, C. (2006) *The Book of Percussion Pedagogy: A Step-By-Step Approach for Teachers & Performers*. 2<sup>nd</sup> Edition. North Carolina: C. Allen Publications.
- McIntosh, M. & Tinkel B. (2009) *Green Beats 2010: An Inside Look at the Cavaliers Percussion Program*. 1<sup>st</sup> Edition. Oregon: Tapspace Publications, LLC.
- Miziko, J. (2015) *Percussion Repair: From the General Music Classroom To The High School Band Room*. Accessed 11/29/18 from <https://www.mmea.net/wp-content/uploads/2016/07/eW-2PM-MMEA-Handout-Mizicko-15.pdf>
- Percussive Arts Society (2016) *International Drum Rudiments*. Accessed 4/27/16 from <http://www.louisvilledrummer.com/lessons/rudiments>
- Savage, M. (2019) *Educational Philosophies for Marching Percussion (And Life)*. Accessed 1/1/19 from <https://banddirector.com/marching-band/marching-percussion/educational-philosophies-for-marching-percussion-and-life/>
- Schievert, J. (2018) *Big life. Big stage. Big Ten. an examination of Big Ten Conference marching band policies and procedures concerning social media, copyright, relationships with athletic departments, and behavioral expectations*. Accessed 2/15/19 from <https://ir.uiowa.edu/cgi/viewcontent.cgi?article=7604&context=etd>
- Willie, E. (2016) *Drumline: How Do I Teach That?* Accessed 12/31/18 from <http://thevault.musicarts.com/drumline-how-do-i-teach-that/>
- Wiggins, T. (2018) *Marching Percussion and the College Percussionist: Bringing the Marching Program into the Percussion Program as an Aspect of the Overall Curriculum*. Accessed 2/17/19 from <https://www.static1.squarespace.com/static/57bb339dbe659420516c952e/t/5b3a4e018a922d6a15ef4c5d/1530547713510/NCPP+2018+Wiggins-Marching+Percussion+in+The+Curriculum.pdf>
- Winter Guard International. (2006) *History*. Accessed 5/29/18 from <https://www.wgi.org/history/>
- Wollwage, T. (2016) *Marching Percussion Instruments: Off Season Care and Maintenance*. Accessed 11/9/18 from <https://www.hub.yamaha.com/marching-percussion-instruments-off-season-care-and-maintenance/>

**Appendix A****Email Correspondence****TapSPACE** <support@tapSPACE.freshdesk.com>

Mon, Mar 4, 12:32 PM

to me

Hi Tom,

Thanks for asking first. That would be fine. Please use the version attached to this ticket. Thank you!

Best Regards,  
Murray Gusseck

NOTE: This is in response to your request. To view the full support ticket dialog, click here:

<https://support.tapSPACE.com/public/tickets/9d0acb7a21acd27b2a55bb7ad6b6bdd4066358fd7afd58a4c3a91427d8345f9a>

--

**TapSPACE**  
[creativity in percussion](#)

On Sat, 2 Mar at 7:40 PM , Tom Ford <[tomfordpercussion@gmail.com](mailto:tomfordpercussion@gmail.com)> wrote:  
Hi,

I am a graduate student at the University of Wisconsin at Stevens Point. I am writing my thesis "Pedagogical Concepts in Marching Percussion", and plan on presenting it in mid-April. I am hoping to obtain permission to use a picture from "Green Beats 2010". It is the chart on page 14 depicting tenor drum playing zones. If you could email me or call me back at (708) 408 8426 as soon as possible, I would greatly appreciate it. Thank you.

Tom Ford

**Chris Crockarell** [crock@rowloff.com](mailto:crock@rowloff.com) [via](#) comcastmailservice.net

Tue, Mar 19, 5:27 PM

to me

Thanks, Tom.

We can grant this as long as RLP receives credit...

"used by permission from Row-Loff Productions (from *Field Level*)"

Chris

Chris Crockarell

*President/ Row-Loff Productions*

[crock@rowloff.com](mailto:crock@rowloff.com)

800-624-8001

On Mar 17, 2019, at 5:11 PM, Tom Ford wrote:

Mail from RLP Web Site!

Name: Tom Ford

This Person is: student

Comments:

Hello,

I am a graduate student at the University of Wisconsin- Stevens Point and am writing my graduate thesis "Pedagogical Concepts for Marching Percussion". I was hoping to obtain permission to use a few photos from "Field Level: The Ultimate Band Director's Guide to Fielding the Ultimate Marching Percussion Section". They are the tying cymbal knots photos on page 143. If you're willing to give me permission to use these photos, would you please send along the page in a pdf file? I really appreciate your time. Thanks!

Best,

Tom Ford

Dear Tom,

Thanks for contacting Pearl and congratulations on getting to this point in your education. Please feel free to use the image in your thesis with our permission. We do not have the original image but you can download a pdf of the article from this link. <https://www.pearldrums.com/media/education/basic-snare-drum-tuning.pdf>

Good luck with your thesis and best wishes.

Sincerely,

Your Pearl Corporation Team,  
Support Department

---

*We hope this response has sufficiently answered your questions. If not, please do not send another email. Instead, reply to this email or [login to your account](#) for a complete archive of all your support requests and responses.*