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Bass Bell Techniques

by Thomas E. Parsons

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Cover Photo is of a Malmark A5, Schulmerich A2
by Thomas E. Parsons

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Thomas E. Parsons grew up in Tucson, Arizona, and was first introduced to music through a church handbell group just after graduating from high school. Music quickly captivated his full attention, motivating him to complete both a bachelor's degree and master's degree at Northern Arizona University.

After six years of study in music history, choral conducting, and handbells under Douglas J. Benton, Tom moved to the San Francisco Bay Area to join *Sonos Handbell Ensemble*.

During his four years under the guidance of James Meredith, Tom performed classical music professionally for national and international audiences and developed this instructional material on bass bells for Sonos' in-depth workshops.

levels of competence. The success of the ensemble owes a great deal to the equitable treatment of your peers. Work to understand the playing style of the people around you so that you can anticipate when their clappers will strike. If you breathe preparatory beats together with your neighbors your chords will be much more accurate. If all the ringers trust their partners to come in rhythmically and dynamically when they are supposed to, then ringers can anticipate each other and successfully perform virtuoso passages.

The very finest music happens when every ringer is playing the entire score in their head and has the exact same concept for each phrase and each individual musical line. No one ringer has control of an entire phrase. *You* must objectively listen to how *your* actions are contributing to the aggregate musical result.

10. Love the plateau

In mastering anything, growth happens in short dramatic spurts followed by long plateaus where no apparent progress is being made. If you are stuck in a "rut"-- have patience. Your technique will improve with continued diligence. Those plateaus are where we learn and grow and the sudden epiphanies are the fruits of our efforts. Once you understand and enjoy the learning process, you will persevere and love the plateaus because the only reward worth having is the one that was earned with hard work and integrity.

~ A Final Word ~

I hope you have enjoyed reading this guide and have experimented with many of the techniques. It is a real privilege to be able to share the philosophy I've developed toward ringing bass bells and my true desire is that aspiring ringers can take this knowledge, integrate it, and build upon it to their full musical potential so they can offer their peers and audiences sublime excellence and seamless musicality.

Do not stand in the way of the composer's inspiration or the conductor's interpretation. Handbell ringers contribute to a whole that is much greater than soloists could ever achieve on their own. That blend of teamwork, interdependence, and synergy is the finest reward of playing this beautiful instrument. *TEP*

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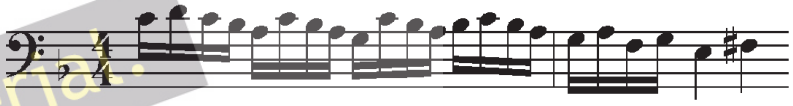
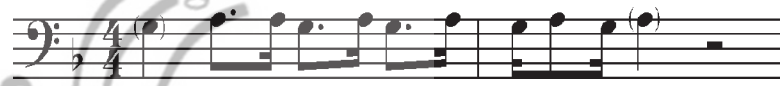
accurately you will play. Setting the bell in motion long before it needs to ring helps me from "clamming" when it's clapper time. Also, over-subdividing can slow you up. Rather, feel the fast notes as syncopations against the larger beats.

Take the G4 - A4 assignment in the following measure as an example:



If you are playing G4 and A4, don't get bogged down by counting every sixteenth-note and frantically jabbing yours in. Feel it like this:



One, two, a-three, a-four, a-one-y, a-two. Very similar to many contemporary beats. Soon, as you work slowly, you'll be able to rest on the rests and let your neighbor play that note for you while still feeling the beat and your syncopations against it.

7. Listen to the sound you're making

Often we are so involved in what we are doing that we do not realize the result and its impact on the whole. Therefore listen objectively to the results of your ringing technique. Recording yourself with video or audio can be invaluable and can help correct bad habits quickly.

8. Submit to the director's ears

Only the director knows if your dynamics and tone fall correctly within the larger context. Because bells move as they're played and the angle of the casting to your ear is different from its angle to the audience, the overall balance of the ensemble will only be ascertained at six feet or more from the bells. Therefore the director is the final authority on your musical contribution.

9. Be an example to your neighbor in rehearsal; give in to your neighbor in performance.

Have the utmost respect for your fellow musicians. Everyone is working toward a common goal but each person may be at differing

3. Maintain Concentration Throughout

Your job is to consistently execute a thoroughly rehearsed and choreographed routine. Most of the time when injuries occur while ringing bass bells, the ringer has let the mind wander for a split second then has had to leap for a bell at the last minute, straining something in the process. The difference between a sloppy and a stellar performance depends entirely on the amount of calm concentration spent on the detail of the music. Relaxation of extraneous physical and psychological tension will always improve performance.

4. Play the Entire Score

The secret to virtuoso bell ringing is simple: *every bell involved has to be in motion before it sounds*. The key is anticipation. You cannot wait for your neighbor to ring or you will be too late. The best way to anticipate is to imagine that you are playing the entire line and insert your notes into an intimate awareness of the whole. This is something that is not easily explained; it has to be felt. As an exercise, sing the line your note contributes to and move your arms to insert your lonely note into it. Doing this will also help your dynamics to be in context with the phrase.

5. Memorize

Memorizing large sections of your choreography frees up your faculties enough to allow you to experiment with musicality. Always work toward memorization in the lowest bass because you must move so much in relation to your music stand. Memorizing also keeps bells from surprising you in performance. Keep in mind that you are memorizing a physical choreography, not just a melody.

6. Get in touch with your *dysfunctional* metronome

No one is rhythmically perfect. You will always have room to improve in steadiness of repeated notes and the tempo at which you can maintain them. Do you own a metronome? Metronomes are your "friends" for learning to feel internal rhythm. Continually work toward being able to precisely align your internal metronome to an outside input. When choosing a practice tempo, do not let your hands get ahead of your brain. Start at a tempo your hands can successfully execute and then inch up the tempo until it is faster than performance speed.

Release anxiety by breathing regularly while you perform tricky rhythms. Many people do not realize that they hold their breath when the "big moment" comes. The more you breathe and relax, the more

Introduction

Welcome to the sub-culture of bass bells! If you are new to ringing bass bells, I hope this guide will help you quickly learn how to manage these really big bells. If you are an experienced bass-bell ringer, perhaps you will glean insights that will help you play more musically and with less effort.

A "bass bell" could be roughly described as big and heavy. Technically, bass bells are those notated in the bass clef (C♯5 and lower.) However, this guide will primarily address techniques used for F♯3 and lower. G4 is generally the lowest bell that can be effectively "thumb-damped" without using two hands and C4 is generally the lowest that even the macho attempt to four-in-hand as a practical assignment. G3 is the lowest bell in both Schulmerich and Malmark (the two major American manufacturers) that uses the smaller-sized handles and clapper assemblies. Bass bells F♯3 and lower are much larger and heavier, and have significantly different clapper mechanisms than those above them.

For those who do not have the upper body strength to lift the biggest bells easily, this guide will help you ring any bell where your technique is significantly altered to account for the weight and the size of the instrument.

Developing Physically, then Mentally and Musically

Ringing bass bells is a physically demanding activity. Laying a good foundation of physical preparation through exercise and weight training will allow your body to execute the rhythms and physical preparation will keep the weight of the bells from being a limiting factor in your musicality and dynamic range.

"I once rang a bell THIS BIG."

It seems the weights of bass bells inflate with each passing concert. The heaviest bell regularly used, an older Malmark bronze G2, weighs 12 lbs. 2oz. Some people who work out at the gym might say "Twelve pounds? That's sissy stuff! I bench ten times that." Remember, however, that it's not the actual weight that kills but rather the endurance of repeatedly lifting "heavy metal." We're training to be marathon runners not 50-meter sprinters, so when you exercise, lift lighter weights for longer periods of time.

Chapter 5 ~ Notes on Aluminum Bass

Yes, aluminum bells weigh less but they are enormous. The overtone structure of aluminum makes them stick out from the bronze so they should be treated like a completely separate instrument. They can add their weight effectively to pieces on a grand scale.

If you own aluminum bells, remember that a little goes a long way. They are easily rung so their sound may be too harsh or too loud. For assistance in damping, a foam cradle or rolled towel can be used for each of the aluminum bells. This prevents them from rolling and helps eliminate some of the *whomping*.

Aluminum bells use a great deal of table space and it is easy to clang them together like two garbage-can lids (an analogy for those who remember when garbage cans were made out of metal). Forget about weaving with them—fan them out and assign them so no one has to ring more than two in a row. Perhaps two ringers could be assigned solely to the aluminum in the arsenal.

Chapter 6 ~ Master's Tips

1. Practice in rehearsal as little as possible.

P*ractice* is the time you spend alone working out the logistics of your choreographed part. *Rehearsal* is a scheduled time when all the musicians combine their parts. So much rehearsal time is needed to work out logistics between players that it is important to have your rhythms and setup prepared. It is unfair to your peers to waste their time while you practice your personal rhythm and choreography. When practicing, listen to the whole piece in your ear and sing through the rest of the context, slipping in your notes in perfectly.

2. Never Let a Bell Surprise You

I'll say it again:

"**P**rior **P**reparation **P**revents **P**oor **P**erformance"

Prepare for every note and properly lift every bell before you play it. Sometimes there will be holes in the music because you "spaced out." As you improve and memorize your choreography, missed notes will be the exception and you will be a consistent and uninjured performer.

♪ Passing an Accidental Up the Table

A bell that is only played once or twice in a piece is a prime candidate to assign to someone further up the table. Be mindful of that ringer's ability to read both staves at once. If you are the ringer who is assigned the accidental bass bell, make sure you thoroughly study the score and clearly mark every time it plays. Pay careful attention to the different technique that it takes to ring different sized bells together. For example, when playing an A2 and an A6 together, concentrate only on the A2's clapper and when it hits the casting.

♪ Modified Hilty Assignment

If nothing else is working, consider using a technique of assigning that borrows its main concept from Everett Jay Hilty's system of bell distribution that he devised in the 1970's. Hilty's handbell methods were unique. He "spent hours analyzing 'busy' and 'lazy' bells in each composition in an attempt to keep all twelve players equally busy at all times." So take the number of people and the number of bells needed and divide the bells equally among them. For instance, if there are five people below C5, begin with the lowest note on the HUC and give every fifth bell in the HUC to one ringer. An assignment like this might consist of G2, C3, F3, B♭3, and E4. Make sure that the bells most frequently used are split between the ringers evenly.

♪ Creative Cooperation

Bass ringers are the most visible due to the size of bells they play but nothing is less "musical" than to watch one overloaded ringer blunder through his part while a neglected neighbor breezes through without even changing bells. Lose the ego: share bells with your neighbor and always look for ways to lighten your load to make the overall product sound better. If your assignment is too hard it has been assigned wrong. Then go a step further: even if your bell changes are easy, give up a bell in your normal assignment to reduce the number of table damps you must execute. The more you can damp with your hands the smoother the music will be.

Move any shared bells to the outside of your setup, especially if your neighbor has to pick them up regularly. The more you think outside the keyboard the less you will get in each other's way. Often a ringer further up the table who has a free moment can walk down and help the bass in a heavy passage, then move back up afterward. All these options need ample practice and choreography. Arrange special sectionals outside of rehearsal to nail down tricky coordination between ringers.

Chapter 1 ~ Preparing To Ring

You must stretch the muscles you use for ringing before every rehearsal and every performance. The weight lifting begins when you pull the bell cases out of the closet, so be sure to stretch the muscles of your chest, upper and lower back, shoulders, arms, and wrists. You can find many good stretches from a variety of sources. It is especially important for bass ringers to stretch, even if the other members of your ensemble do not. Defy peer pressure and take the time to stretch. It is time well spent which will help prevent injuries.

♪ Use Leverage While Lifting

Posture is very important in preventing injury when lifting and ringing heavy bells. Choose an active stance with one foot slightly forward and one slightly back while bending the knees. This stance is similar to those used in martial arts or fencing—relaxed yet instantly ready to act. This posture immediately produces more leverage when the weight of the bell shifts the body's Center of Gravity (CG). In addition, the torso will be open and ready to move laterally up and down the table to reach the bells which are further away.

When it is time, use your biceps and legs, not your back, to lift the bells. If you are short enough that the table height is at your elbows, push the handle of the bell into the pad with the bottom of your hand to increase the leverage. Lock your wrist and flex your bicep (upper arm muscle) to tilt the bell upright. It is crucial for the wrist position to change as little as possible.

Keep extraneous muscles relaxed to prevent injury. If you have a hand free, grab the lip of the bell to aid in tilting it. Chapter 2 will contain more detail about prepping the bell to ring after lifting it. But for now, place your lifting hand under the bell's CG as quickly as possible to reduce wrist strain.

If your knees are locked your back may be doing the work instead of your legs. Crouch more and try again. Finally, use the leg muscles to complete the lift. The clapper should be free to pivot and cocked to ring. Once you are familiar with the muscles required, it will become a single, fluid motion.

♪ Gloves and Padding

Gloves have two purposes in handbells: padding and decoration. Gloves do not really protect the bell from your sweat and fingerprints. As soon as you wipe your forehead with your gloved hand and touch the bell you've lost the protection. *Instead your gloves protect you from the bell.* Many sports have specialized equipment to help pad and protect the hands from bruises and blisters.

Bass bells share hand protection needs with sports such as cycling, weightlifting, sailing, tennis, and baseball. Pharmacies sell protective devices such as wrist supports and corn cushions to supplement hand protection. The bony prominences on the knuckles of the thumb and index finger support most of the weight of the bells, and the webbing between those fingers takes abuse from the handle. Find a combination of protection that works for you. For practice, I have used sailing gloves which are light on padding to improve feel, yet are durable and grip well. For performance, I use dress cotton gloves over fingerless cycling gloves. Any supports you wear should allow freedom of motion and adequate blood circulation.

♪ Prior Planning Prevents Poor Performance

Remember the five "P's" as you practice:

Prior **P**lanning **P**revents **P**oor **P**erformance.

Before you play, decide on the physical choreography you will be executing for each piece of music. Make brief but intelligible notes and keep them with your scores. If you miss a concert, your substitute will thank you profusely. As part of the learning process, extract your notes from the score and refine their execution to a specific set of kinesthetic motions. This is your "part" that you should memorize independently and bring back to the whole in rehearsal.

In this sense, bell choreography is like Tai Chi or ballet. Work for fluidity of motion—make it look effortless. Anticipate and set the bell in motion long before it is scheduled to ring. Move to each new setup quickly so each bell receives enough preparation. Once the physical choreography is mapped out, write the opening setup in the upper margin of the first page of the score.

When it is time to play (performance or rehearsal), rest your fingertips on the bells you are going to ring first and silently watch for your

stagger what remains. If you are not sharing a group of bells with your neighbors, you can cluster the handles in toward a central ringing position, making the castings fan out around you like an organ console. This is often most effective for the lowest bass ringer, whose tables can even wrap around him in an L-shape to arrange all the largest bells.

♪ Left Hand – Right Hand Pre-Planning

Sometimes an entire passage will open up by starting on the correct hand. Work backwards from the trouble spots, using a longer note as an opportunity to switch hands. If it still doesn't work, rearrange the bells and start again. Try to execute the difficult technique in the hand that can best accomplish it. Beginners learn with a high note in the right hand and a low note in the left hand. It is important to learn to play any note in any hand so that the left-right choices are entirely based on the choreography. For practice, try learning a piece with the high note in the left hand.

~ Non-Chromatic Assigning ~

♪ A Functional Layout

Some bells may be used in one section of the music and not in another. Each pattern can be set up on a different part of the table, moving the shared bells in and out of the arrangement. Think in terms of which bells are needed and when and how can they be played the most consistently and musically.

♪ Two Bells for You, Two for Me...

Think of ways to split the work between two ringers so that no one ringer needs to ring three different bass bells in a row. The clearest example is to assign a C-scale with one ringer playing C, D, G, and A, and another playing E, F, B, and C. This way, each ringer has two beats worth of time to switch both bells--and no weaving. Try having two ringers ring a C-scale with the following bells on the table in this order, from left to right:

Ringer 1: **C3, D3, E3, F3.** *Ringer 2*: **G3, A3, B3, C4.**

Notice how the labored weaving and lots of *whomping* detracts from the musicality. Now try it again with the bells in this order:

Ringer 1: **C3, G3, D3, A3**. *Ringer 2*: **E3, B3, F3, C4.**

The difference will amaze you. It will be musically palpable!

2. Avoid Weaving Whenever Possible

Now for the second part of the two-step process: avoid weaving whenever possible to get the most musical result. The greatest advantage bell ringers have over keyboard instruments is that the "keys" can be rearranged at any time to facilitate the choreography. Set up the bells so you can reach them with ease.

Let's now take the four bells [G, A, B, C] in our weaving example and ring them in the same upward scale left-right-left right. However, arrange those bells on the table as [G, B, A, C].

1. Rest your left fingertips on the G and your right fingertips on the A.
2. Lift and back-ring the G with your left hand.
3. Table damp the G as you back-ring the A with your right hand.
4. Lift and back-ring the B with your left hand as the A in your right hand table-damps in its position next to the C.
5. Damp the B on your left shoulder as you back-ring the C.

As if by magic, you've just eliminated the tricky part of the weave and you'll find you can play the passage more cleanly. As your skill improves, you may find yourself leaving the tyranny of the keyboard layout completely. Each piece of music will dictate a layout that shifts from the first measure to the last. It is a choreography that does not need to be rigid if you memorize all the motions in time and space. If you are so inclined, you can read materials geared toward solo ringing and use the same techniques on bass bells.

~ Layout ~

♪ Space Needed For Bass Bells

You will need at least eight linear feet of table space for C3 – B3. Using less than eight feet will substantially increase the danger of crashing them together. A bass assignment is typically much wider than the person playing it. You will need to quickly move laterally up and down the table to reach different bells. Large setups pose the danger of hurting your back by bending over to quickly pick up a distant bell. Removing extra bells from the setup will reduce the long, hasty reaches.

♪ Stagger and Fan

Stagger the handbells like the keys of a piano keyboard, placing the "black notes" slightly above the "white notes." If you have all white notes for a particular piece, take the accidentals off the table and

conductor's cue. There is no good excuse for starting a piece with the wrong bells in your hands. This kind of advance preparation will enable concentration on bell sharing and problem solving that can only take place when the whole bass team is together in rehearsal. Your mission to refine your contribution to the whole will be richly rewarded as you move beyond the struggle to read your notes and begin to immerse yourself in musical expression.

Chapter 2 ~ Basic Bass Bell Tecnhique

~ Ringing ~

Typically, a rhythm problem is either a technique problem or a mechanical problem. Spend active time practicing handbell technique (pedagogy) so every rhythm can be played accurately and with musicality. If the bass bells are in poor mechanical repair, it will hamper your ability to ring accurate dynamics and rhythms, so phrasing and musicality will suffer.

Do not "wring" the bell but rather let the *clapper* ring the bell. Volume is a function of clapper speed, not arm motion. Eliminate all wrist-snap action. Your flexible wrist will move as a result of ringing the bell but the wrist must not be used to initiate the ring.

I know they are heavy, but musicality requires you to be relaxed. Hold the handle as you would a live bird: loose enough not to crush her, but firm enough not to let her escape. You should be able to hold the bell up with your first three fingers, letting the weight rest on the bony prominences of your thumb and index-finger knuckles. If you're holding it correctly your ring-finger and pinky will be loose. You will notice that the bicep and legs flex to support the weight, not the hands or back.

A note on clapper adjustment: loosening the clapper settings will enable the bell to ring louder and facilitate the back-ringing techniques *(described on next page)*. If you are accustomed to tighter springs, initially you may be frustrated by undesired bumps of the clapper against the bell as you try to move quickly when ringing difficult music. As you refine your control over loose bass-bell clappers, you will expand your whole dynamic range and you will find your musicality taking giant leaps forward.

♪ Forward ring

"Forward ringing" a bass bell is essentially the same as ringing a smaller bell except that the clapper position is important to a successful strike. It takes three steps:

1. lift the bell,
2. cock the clapper back, and then …
3. make the clapper swing forward into the front side of the bell.

♬ One-Handed

Feel and control the clapper, not the casting. With bass bells, the bell must be lifted upright until the clapper tilts to the backside of the casting and the bell's CG is directly over the hand. From that position, raise the bell with your arm, and then drop the clapper toward the front side so that the clapper swings over to the other side. Keep the bell from tilting forward beyond the straight up position, keeping the bell's CG squarely over your hand as much as possible.

♬ Two-Handed

When a section of music requires only one bell, free up the other hand and use it to help the busy hand. Hold the bell with one hand and insert the middle two fingers of the other hand in the handle with the outside two fingers and thumb wrapped around the outside of the handle. Push with the upper hand and pull with the lower hand to ram the clapper into the casting. Ringing two-handed gives you more control, which equals more musicality.

♬ Forward Clapper Throw

Throwing the clapper of a bass bell is the way to get the most volume from it. This technique is especially useful for smaller ringers who do not regularly lift bass bells. Pivot the bell up on its handle end and, while balancing the bell upright on the table with one hand, reach inside with the other and grab the clapper as you would to pluck: thumb on the back side of the clapper and middle finger on the front side. Throw the clapper away from you with a forearm twist and follow through with your arm. The thumb does the work, snapping the clapper with great force into the stationary casting.

♪ Back Ring

Back ringing eliminates one step from the three steps necessary to accomplish the forward ring. Lift the bell as before but do not pivot

Chapter 4 ~ Advanced Techniques

Weaving: A Two-Step Learning Process

1. Thoroughly Master the Art of Weaving

Weaving is an essential technique every bass ringer should learn so that more than two bells in a row can be rung. If you have never weaved before, it might help to have someone show you in person. Following is a four-bell weave as simplified by the back-ring technique discussed earlier.

1. Set up from left to right [G3, A3, B3, and C4].
2. Rest your left fingertips on the G and your right fingertips on the A.
3. Lift and back-ring the G with your left hand.
4. Table-damp the G as you back-ring the A with your right hand.
5. Here's the tricky part: Lift and back-ring the B with your left hand as the A in your right hand weaves counter-clockwise under it and table-damps in its original position next to the G. If your arms go pretzel, reset and start again at step one.
6. Lift the C with your right hand.
7. Damp the B on your left shoulder as you back-ring the C.

To weave back down:

1. Forward-ring the C in your right hand.
2. Table-damp the C as you forward-ring the B in your left hand.
3. Tricky bit again: Lift and back-ring the A with your right hand as the B in your left hand weaves clockwise under it and table-damps in its original position next to the C.
4. Lift the G with your left hand.
5. Damp the A on your right shoulder as you back-ring the G.

Remember to always alternate hands. It's similar to walking—you never step with the same foot twice in a row. Once you get the basics down, practice weaving regularly until it is second nature. There is no substitute for repetition and familiarity. Here are a few hints to make things smoother and easier:

- Table-damp each bell back in the same place you lifted it.
- Don't reach across your body to lift the next bell. In your active stance, rotate your body at the waist so your free hand extends toward the target bell. This will automatically move the bell in your hand out of the way.
- Dance your way through the weave, shifting your weight in rhythm with the arm motion, keeping your knees bent so as to not lift with the back.

♬ A Martellato is an Articulation, Not a Dynamic

You must remember that marts have to make musical sense and should be executed with care. Martellatos can sound as much as four times louder than a rung bell of the same intensity. This is because the foam pads have tiny air chambers that amplify the sound. Therefore use marts as a different "color" in your "pallet of sounds" that can be played from pianissimo to forte.

♪ Thumb damp

A lone thumb will not sufficiently damp a bass bell. From C5 to about E4 (depending on the size of your hand), you can hold the handle with your last two fingers and grip the waist of the bell between your index and middle fingers and your thumb. For bells lower than E4, place a free hand around the waist of the bell. The amount of contact your hands have with the bell will determine the dryness of the thumb-damp.

♪ Swing: Avoiding a "Wall-Mart"*

When the music calls for a "tower swing" it imitates the Doppler effect of a tower bell. Pretend you're weight lifting with dumbbells for the proper motion—lowering the bell to your side then lifting it back upright. Do not let your wrist bend downward with the lopsided weight of the bell. * *"What did the bell ringer play when he accidently over-extended his tower swing into the wall behind him?"* Tammy Waldrop

♪ Echo

The Echo is a novelty technique not often used. It only works well in the bass where the bell resonates enough to continue sounding after it has lightly touched the padded table.

♪ Vibrato / Gyro

For a vibrato, hold the bell high with one hand and grab the handle from underneath with the other hand, like grabbing an overhead handle while standing on a public bus or commuter train. Then twist the bell with the lower hand as if tightening and loosening a screw-driver. Let the handle rotate freely in the first hand. On treble bells ringers often vibrato by tipping the bell forward into the fencing grip. You cannot do that here because the angle your first hand must assume will strain your wrist. I discourage doing a gyro at the risk of injuring your wrists.

the casting back to cock the clapper. At the proper time, bend your elbow and raise your hand toward your shoulder so that the clapper swings rapidly toward you and hits the backside of the casting. The back ring is an important technique to master so it is worthwhile to learn to back ring as fluently as forward ring. Because back ringing only takes two steps instead of the three steps necessary to ring forward, it is faster and can help you execute passages that would otherwise cause you to ring "into the table" *(see "flapping" below).*

♪ Controlled shake

Combining forward and back ringing enables fast, repeated notes. Alternating between forward and back ringing strokes causes the rebound from each strike to become the preparation for the next. It is usually necessary to end a set of repeated notes with a forward ring. for your follow-through circle.

Begin an odd number of repeated notes with a forward ring and begin an even number of repeated notes with a back ring. This will be counter-intuitive at first, but with practice your alternating forward and back rings will become an easy and controlled way to execute passages that were previously awkward and rhythmically inaccurate.

~ Shaping the Phrase ~

This is where all the music is made. Thus far we've been dealing with the physical logistics of bass bells. Controlling the clappers of these awkward, heavy instruments is important, but the most crucial aspect of your job is to make every motion serve the music and blend into the unified whole.

♪ Maximizing the Sound Reaching the Audience

The sound waves emanate from the bell casting in a disc, radiating out perpendicularly to the handle. Virtually nothing comes from the mouth of the bell. Thus, for the sound to reach the audience, the side of the bell must be facing the audience when it strikes. If you do not pick up the bell so that it is fully upright before it rings, then the sound will go down into the table (and up into the rafters) so that none is aimed directly at the audience. You also risk wrist injury with this technique because the bell's CG is not over your hand. The slang for ringing without lifting your bells upright is called "flapping." *Flapping* looks sloppy and sounds worse. If you can't get the bells upright in time - even when back-ringing - then they should be reassigned. *(Bass bell assigning will be discussed in Chapter 4.)*

♪ The Plane of Sound

In bell towers throughout Western civilization there are two main types of bell setups: *tower bells (left)* and *carillons (right).*

Tower bells swing back and forth on an axle when pulled by a rope. *Carillons* have fixed bells whose clappers are pulled by cables connected to an organ-like console. Swinging tower bells sound vastly different from bells fixed in a carillon due to the Doppler effect and the changing plane of sound. The point is that the motion made with the bell after it rings is integral to its tone and phrasing.

♪ Normal Circles

Making a circular motion after the clapper strikes is a favored stylistic technique for modern handbell ringing. Technically this movement sweeps the plane of sound waves up and out to the audience. This aural effect gives drive and direction to the bell tone. Experiment with the speed of the circle to achieve the best effect. Longer notes should move more slowly with much larger motions and shorter notes need less physical motion to execute cleanly.

Striking a long note low and below the table then bringing it gradually to an upright position can actually give the impression of a crescendo! One unique musical aspect of our instrument is that the audience will hear what they physically see you doing with the bells.

♬ Circles That Fit the Note Duration

Study the score to find places where LV markings override the note-values written in the score. Often you'll find that the eighth notes you play don't need a hurried arm circle an eighth-note in duration. Look for the places where your choreography of hand circles can be independent of the actual note values and use hand-damping to toe the line when needed. A harrowing section of baroque sixteenth-note sequences often suddenly become relaxing quarter-notes when seen in this light.

♬ A Substitute for Normal Ringing

If you are tired from ringing bass in a four-hour rehearsal, malleting your part can still reinforce the rhythms while saving the arms. However, for performance it is best to avoid using mallets where the composer has called for a different technique. If it is not possible to ring a particular section, one might pluck that section rather than malleting—the sound from the bells' own clappers is always better than an external mallet. If a situation arises where you know you are going to be short-handed for a performance, malleting the lowest note of each chord turns you into a basso continuo player which can really help make the music sound complete.

♪ Shake

Ring a bass bell rapidly forward and backward and you have a shake! The tempo of the strikes depends on the length of the clapper. Try to shake faster and the clapper will "float" in the center and not strike at all. For a shake on a smaller bass bell in the range of C4-G4, turn the bell forward in your hand (more like a fencing grip) so the mouth faces the audience and shake side to side. This takes the force of gravity off the clapper and will often enable a cleaner and softer shake. Due to risk of wrist strain it is best to use two hands for this forward shake below C4 and not execute this technique at all below G3.

♪ Martellato

The hard pluck of a bass bell is just as loud as a martellato and manufacturers discourage marts on bass bells. The lip of the bell can easily sink straight down to the table and crack the casting.

If you are not yet discouraged from marting a low bass bell, then please read on…

♬ Hinge Mart

When performing martellatos on G3 and above (the absolute lowest you should mart), never let the handle leave the table. Pretend that the bottom of the handle is hinged to the pad and mart lightly from 3 to 5 inches up. For a "Mart-Lift" bounce the bell off the pad so that it continues to ring. For fast repeated marts that are not supposed to ring in between, hold your hand on the waist of the casting as you mart. I've seen some bass bangers with large hands palming their bass marts like basketballs!

finger in and tap the clapper against the casting with your thumb as if you were dribbling a tiny basketball.

♪ Mallet

Experiment with different densities of mallet heads to produce a good, clear tone. If the mallet is too hard for the bass bell it creates a harsh, clanging timbre—and could damage the bell.

♬ Malleting Bells on the Table

Rule number one*: hit the bell on the outside of the casting on the clapper's designated strike point*. **Do not hit the bell anywhere other than precisely where the clapper is designed to strike, or you can break the bell**. Here is why: Manufacturers save on the weight by making bass bell casting walls very thin. Ever wonder why bass bells are so much quieter than treble bells? It is because a bell's thickness determines its amplitude, and bass bells are proportionally much thinner than their smaller counterparts. Malleting too hard in the wrong spot can easily crack a very expensive bell.

As for technique, keep in mind that a mallet does not readily bounce off a bell as it would with a drum so it must be lifted after each strike as though drawing the sound out of the casting. Percussion teachers can easily demonstrate good mallet technique.

♬ Malleting Suspended Bells

Performers have come up with several methods to mallet bells suspended like a carillon. I prefer to hold the bell upright or upside down with one hand, turned 90 degrees so I can see through the handle loop, then hit the bell from the side on the precise strikepoint for that bell. Mimic the way percussionists play the triangle. If you have the bell oriented sideways, do not allow the mouth of the bell to face the audience. If you mallet the bell anywhere not in line with the clapper, you will hear the awkward clunk of the clapper jolting against the yoke assembly.

Suspended mallet rolls are a common variation. To mallet on the outside of the casting, take two mallets in a spread grip so that you can place one mallet on each side of the casting. Alternately, position a mallet inside the casting and rattle it around inside. With all suspended malleting, be extra careful not to touch the bell with the mallet's handle or you'll get a zinging clang that is not easily damped. If you use a bell rack, be sure it's sturdy and can take the swaying results of your enthusiastic malleting.

♬ "Robot Ring"

Holding a bell stationary after the clapper strikes is informally called a "robot ring." The *robot ring* simulates the carillon sound, giving the bell a straight tone that stands out above the other bells. Robot ringing is usually used to bring out melody lines and is seldom intentionally practiced in bass ringing.

♬ "Whip It Good"

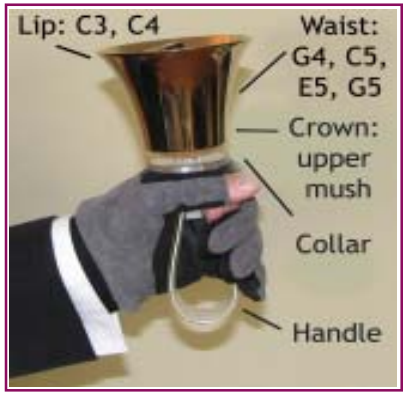
The opposite of a robot ring is when a ringer rapidly whips a bell after striking the casting for a dramatic Doppler effect similar to tower bells. This technique is discouraged when ringing bass bells due to the danger of wrist and arm injury. Being aware of the sound you're producing after the bell strikes will ensure an even, pleasant shape to your tone without the *"wownnng"* sound of excessive bell motion.

♪ Controlled Diminuendo

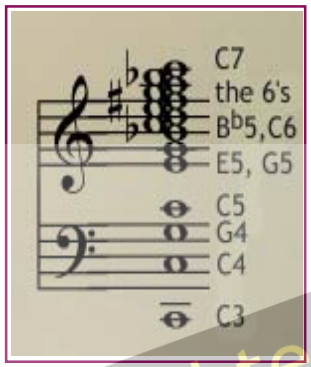
Touching the bell after it has been rung helps modify the sound. If you accidentally ring too loud, reach your hand up and lightly touch a few fingers to the casting or brush it with the back of your hand to control the volume.

~ Damping ~

The precise damping of any bell is as important as ringing it but the sound of a bass bell decays so slowly that there are few places where you can let them "die a natural death." Ringing a bass bell requires a lot of kinetic energy so it follows that effectively damping a bass bell effectively requires much more effort. It is your sworn duty as a "bass-bell-banger" to cleanly and silently extinguish the lip, the waist, and the crown on cue. *(See this figure describing casting terminology.)*



This diagram shows the overtone series for a C3 bell so you can have a better understanding of what you are quenching.



The C3 (fundamental) and C4 sound emanate from the bell's lip.

The strong G4 (the "twelfth") and the "middle C" come from the waist of the bell.

The higher notes (upper partials) are a faint mush coming from the crown.

Be sure all three areas of the bell are silenced! The waist is the part that should be given the greatest care because damping only the lip leaves behind undesirable mush oozing over the bar line.

♪ The three primary damping methods

1. Hand Damp

This is the preferred damping method because it gives total control over the decay of the sound. Bass bells below G4 are generally too large to damp with the fingers of the hand holding the bell so this technique requires you to have your other hand free. Damp most of the bell slightly ahead while the higher bells are still ringing. This will hide the damping of the upper partials. Then damp the fundamental on cue. Grabbing a large bell firmly by the lip dampens it thoroughly when you are moving quickly.

2.Body Damp

The oldest ringing pedagogy in America taught musicians to damp on their chest (aka ringing "off the shoulder.") However you can effectively damp on any body part that is soft and is yours. Skin alone does not dampen bells efficiently so any part of the body used for damping should be covered with cloth.

If only the lip of the bass bell is touched to your body, the bell's upper harmonics will continue to sound and carry undesirably over a rest. If suddenly damped on the body, the bell can *whomp* just as harshly as on a table. To fully damp a bass bell without *whomping*, touch the crown of the bell to your body and then roll the waist of the bell into your body so the fundamental (coming from the lip damps last. If that doesn't work, try it the other way. Your ears are too close and won't hear what the audience hears so ask a fellow ringer to stand ten feet away and give feedback on what works best.

You will not be able to damp on your body with as much control as you would with your hand, so body damping is usually a method best used only when both hands are occupied.

3. Table Damp

Damping on the table is the least desirable damping method and is often the cause of *whomping.* A *whomp* is the leftover sound of a bass bell being amplified by the foam pad as the waist of the bell dampens. The lower the bell, the more pronounced the *whomp* will be. When combined with "flapping" *(see p. 11)* and poor hall acoustics, often the only bass sounds the audience hears are *whomps*, producing an unpleasant delayed-reaction effect. If you must damp on the table, rest the lip on the table first and let it decay, then drop the bell at the last moment before moving to the next bell. The foam in the pad will start to damp the lip but not amplify the *whomp*-producing waist. If there is time and the foam is firm enough, you can lightly rest the bell on the table before its cue, then hand damp the rest of the way.

Chapter 3 ~ Articulations Overview

♪ Pluck

After only four bars of "Sabre Dance," your bass bells are rolling and clanking into each other. You have been struck with the curse that befalls all virtuoso plucking, yet it need not be! Anti-roll plucking technique has the thumb at 12 o'clock and the middle finger at 6 o'clock. Your elbow should be out to the side, not over the bell. Bass bell clappers are large enough that you actually grab the clapper and throw it downward. Just as with the clapper throw, the thumb does the work with a flipping rotation of your hand.

Keeping your elbows out to the side prevents the bells from rolling and thus you will not need to hold the handle with your other hand. This will bend you over the table more so make sure your bass bell layout enables you to reach the clappers. The amount of after-ring or deadness of the sound will largely depend on the thickness of the table foam and covers. Press the bell into the pad for a dry, staccato pluck and lift the bell a little for more resonance. For fast plucking, tuck your middle