

# Choosing Marimba Mallets

BY REBECCA KITE

“What mallets should I use?” This is probably the most commonly asked question in regard to playing the marimba. There have been long threads about it in the conference area of the WPN [now [www.pas.org](http://www.pas.org)], usually in reference to a specific composition. For example, many people have asked different artists which mallets they used in a specific recording or performance. Students search for the right mallets because their teacher has said something like, “Don’t you have some different mallets? Those don’t sound quite right,” or because they aren’t satisfied with the sound they are getting.

Frequently, this search becomes circular, never getting closer to the answer. Responses to the question of “What mallets should I use?” often include: “What kind of marimba are you using?” “What kind of hall is your performance in?” or perhaps even “What grip do you use?” Most professionals’ reply is usually something like, “The mallets I used in a specific recording or performance situation cannot possibly be the best mallets for *you* to use. You must discover the best mallets for *your* performance on your own.”

All these answers bring up important issues for every marimbist to consider in choosing mallets. However, performance venues and issues such as blending with other instruments or standing out in a concerto setting are considerations that are beyond the scope of this article.

Here, I will concentrate on ways to think about marimba mallets that will help you to make decisions about your own basic sound and the appropriate mallets for your own style of playing. It is very important for each of us to experiment, listen, and take under consideration the many elements that influence and make up our marimba sound.

One way to approach this is by considering how we produce sounds on other percussion instruments. The weight, hardness, and material of the various beaters used for different percussion instruments can provide important insights into marimba sound and mallet choices.

## FROM SNARE DRUM TO MARIMBA

Almost all marimbists have come to the instrument from a percussion background; many have studied snare drum first. With snare technique, we learn basic finger, hand, wrist, and arm movements. Both the sticks and our technique are designed to take advantage of, and work with, the rebound of the snare drum head to create rhythms, double-stroke rolls, concert rolls and rudiments, and most of our vocabulary of rhythmic figures.

The snare drum offers a fairly limited range of timbres. Slight variations occur by changing the playing area and by playing into or off the drumhead. A focal point of our technique is bouncing the stick in a variety of ways. Because of this, the weight of the stick, the shape of the bead, and the length of the stick are very important.

We choose snare drum sticks based primarily on how they feel in our hands and on how well the stick bounces and responds to our technique. Some bead shapes make double strokes for rudimental playing easier. Other bead shapes make a better buzz for concert rolls. We don’t select sticks based primarily on how they sound but, rather, on how well we can manipulate them.

At first, applying the same criteria to the selection of marimba mallets seems to make sense. Many players test a mallet’s “feel” first—checking how much flexibility is in the handle, how straight the handle is, the handle thickness, the weight, and perhaps the finish on the wood or rattan. If it feels good, then they may try it on a marimba to see how it sounds.

A mallet might feel great and be easy to use in executing your technique, but it might not produce a good sound or the “right” sound! Some mallets feel great and let you play really smooth one-handed rolls because they bounce so well, or they let you fly up and down the keyboard because they are light. Often, however, the attributes of the mallets that make them feel great are the same attributes that prevent them from produc-

ing a good sound. Using the “snare drum standards” for selecting marimba mallets may give you mallets that you can manipulate easily and that feel good but that don’t *sound* good.

What happens if you reverse the order in which you evaluate the mallets? Suppose you focus first on your marimba sound and last on how the mallet feels and works with your technique?

## MALLET WEIGHT AND INSTRUMENT VIBRATION

The primary elements of a marimba mallet are the weight of the core, the shape of the core, the material of the core, and the thickness and tightness of the yarn wrap. Let’s consider how these elements come into play with percussion instruments other than the marimba.

Studying the way in which gong vibration and sound are affected by different gong mallets and playing techniques can provide insight into the relationship between mallet weight and instrument vibration. If you strike a 34-inch gong with a yarn marimba mallet, no matter how hard you hit the gong, you will not get the entire gong to vibrate. Your mallets are too small and, in particular, too light. You will produce a thin sound with little fundamental pitch—i.e., more high harmonics than low ones.

If you use a bass drum beater on the same gong, you will probably get a little more sound from the gong than you did with the marimba mallet, but you still won’t get the gong’s full sound because you will not be making the entire gong vibrate. The bass drum beater is about the right size, but it is still too light. In addition, because the core of the beater is not appropriate for the gong, the core sound will probably color the gong sound.

With a correctly-weighted gong mallet (matched up in size and material to the gong), you can easily get the entire gong vibrating at a variety of dynamic levels. This is also true on the marimba. If you match the weight of the core to the bar size, you can get the entire bar to vibrate, giving you the maximum amount of sound the marimba can produce. This

will enable you to explore a range of dynamics and expressive possibilities.

#### WRIST STROKE VS. ARM STROKE

If you play a gong using the correct mallet, with a wrist stroke starting 10 to 12 inches from the gong, you will get a sound that is very different than the sound produced by using an arm stroke (or swing) from 24 to 36 inches away, letting the combined weight of the mallet and your arm fall naturally into the gong. By swinging your arm and the mallet into the gong, you set up the maximum amount of vibration in the gong and get its full sound spectrum. For softer playing you can reduce your arm-swing distance. Similarly, with the marimba you can apply more weight to the bar by using an arm stroke, which will produce a bigger, warmer sound than that produced with a wrist stroke.

#### CORE SHAPE

A mallet with a round, spherical core impacts a percussion instrument in a very small, focused area. This can produce a bright sound. Many percussionists prefer broader contact areas in order to produce a warm, rich sound. Again, this sets more of the instrument (bar) into vibration.

A typical selection of bass drum mallets will include some with oblong heads for specific musical situations. Most timpani mallets are not made with a spherical core; rather, they are made with a core that has a broader impact area for a warmer sound.

Most marimba mallets have spherical cores. Exceptions I have found include mushroom-shaped vibe mallets (the broader contact area is why they are preferred over spherical mallets), some of the Encore mallets, and the Yamaha Virtuoso Mallets. Here are illustrations of the various basic shapes:



As a result of developing my own marimba sound and doing extensive experimentation with mallets, I have come to the realization that the core material is as important as the mallet's shape in creating a particular marimba sound.

Just as polyball, plastic, Plexiglas, wood, and brass mallets all will produce different timbres on a glockenspiel, different core materials will color the timbre of the marimba. Materials that are commonly used for marimba mallet cores are polyball (or plastic), wood, hard rubber, very hard rubber, and latex rubber. There are a variety of each of these materials. Generally, a polyball core will give a cold sound; wood core produces a cool sound (but warmer than plastic); rubber core gives a warm sound; and soft-to-medium hard latex produces a very warm sound.

#### MALLET WRAP

The wrapping around the core softens the contact sound. You can affect the core sound by adding a band of moleskin or rubber tape around it. To a small degree, you can change the timbre of the mallet by using more or less yarn. You can also make the contact sound clearer by using a hard yarn such as cotton cord instead of wool or acrylic yarn. In addition to changing the contact sound, more yarn adds weight to the mallet, which can give you a bigger sound.

My experience with all the methods of covering the core, including yarn wrap, is that if you play a wide range of dynamics, at some point you will strike the bar hard enough that the core sound will be the predominant part of the sound.

For example, if you use a polyball mallet with yarn wrap (perhaps labeled as a medium yarn), it may have a warm sound when you play softly, but when you play loudly, the core of the polyball cuts through and the sound becomes very harsh and cold. The wrap has spread and you hear the core sound. This is especially true if the wrapping is loose, which makes it very easy for the core to punch through. In fact, the way to make "two-tone" mallets is to put a loose wrap on a hard core.

#### CREATING YOUR OWN MARIMBA SOUND

As an example, I will describe some of the elements that make up the overall sound of two marimba soloists: Nancy Zeltsman and myself. I have chosen these two examples not because I think they represent something you should try to copy, but because I think that, by studying these two very different approaches to sound and articulation, you can gain valuable insight to use in your own ma-

rimba playing. To hear these sounds I recommend the following recordings: "Chaconne in d minor" by J.S. Bach from my CD *Across Time* and "Three Moves for Marimba" by Paul Lansky from Nancy's CD *See Ya Thursday*.

Nancy Zeltsman has created a personal marimba sound that emphasizes the warm, rich, dark sound of the instrument. She has sought out mallets that have very little contact sound with the bar. She generally uses graduated mallets made for her and marketed by Dan Lidster of Encore Mallets. The mallet core sizes and hardnesses are generally matched to the size of the bars across her five-octave instrument: larger, softer mallets in the bass (where the bars are bigger); smaller, harder mallets in the high register (where the bars are thicker and smaller). Her mallet choices and musical expression combine to create a beautiful and wonderfully expressive marimba soundscape.

I also use a voiced (i.e., graduated) set of mallets for the marimba. While the Yamaha Virtuoso mallets I use all have cores of the same hardness, the diameter (and therefore the contact area and weight) changes. The largest diameter cores in my mallets are used for the low end of the marimba, the middle diameter for the middle range, and the smallest diameter for the high range. The size of the smallest core is similar to most spherical-core mallets made in the U.S.

For myself, I seek a pure, clear marimba sound where I can use articulation—the contact or attack sound—for the basis of most of my musical expression. By focusing on articulation using one type of mallet, I combine the tightness or looseness of my grip with how and where I strike the bar to create different kinds of sounds. This could be compared to the way in which a jazz drummer works with the ride cymbal, varying the ride pattern as a means of musical expression.

#### WHICH MALLET SHOULD I USE?

I hope I have provided some clear guidelines for exploring and developing your own sound. Remember to listen carefully to the sound you produce.

Also, be aware that what works for someone else's situation may not work for yours. For example, if I played with my mallets, which were designed for a Yamaha 5-octave instrument, on a



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Musser Brentwood marimba (with narrow bars that are all the same width), they wouldn't work at all. The mallets would not be matched to the bar size in weight or core size.

You must experiment with your specific instrument. You must develop your own concept of your desired marimba sound and find or make mallets that will

work for you and with your instrument to create your own musical soundscape.

Rebecca Kite lives in St. Paul, Minnesota, where she teaches marimba, percussion and drumset at the University of St. Thomas and Hamline University. In addition to her performances as a marimba soloist, she works as a freelance timpa-

nist and percussionist with the Minnesota Opera, the Plymouth Music Series Orchestra, and Broadway touring shows. She won the 1999 PAS Outstanding Service Award for her work in helping create the WPN, and is Chair of the PAS Marimba Committee.

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