



# The Mallets Make A Difference

by John J. Papastefan

By his choice of mallets a timpanist controls the quality of sound he produces. A good timpanist will own anywhere from six to twenty pairs of different mallets, and a musically sensitive player will experiment with a passage in rehearsal to determine which mallets produce the best sound. While beginning wind players can use standard-issue mouth-pieces, timpani mallets are best chosen by the timpanist right from the start. Inexperienced student players will need to experiment until they learn to distinguish the appropriate sound. Personal preference is important, though the choice of mallets can depend on the type of timpani and membranes, acoustics in the performing area, and the interpretive intent of the conductor.

The all-purpose mallet is appropriate for most types of general playing; it is soft enough to produce a beautifully full round tone, but it is firm enough for the attacks and rhythmic clarity needed in the contemporary repertoire. This type of mallet is constructed from a hard inner core, sometimes wrapped with cord. It is covered with one or more tightly wound layers of fine-grade felt, such as split piano damper felt, affixed so as to eliminate the seam on the

striking surface of the mallet head. The varying degrees of hardness depend on the number of felt coverings attached.

The staccato mallet (also known as normal staccato) consists of a slightly smaller ball and one or two layers of somewhat harder felt than the general purpose mallet. This mallet is excellent for the rhythmic definition and light staccato playing required in the classical repertoire, particularly in Mozart and Haydn symphonies. The staccato mallet is vital for projecting rhythms in the contemporary repertoire. It is ideally suited to recording because it produces a concise sound without the objectionable boom.

The ultra staccato stick with a small-headed ball of hard felt, produces an articulated sound surpassed in clarity only by that produced by the wood ball timpani stick. Timpanists often select the ultra staccato stick for recording and for creating unblemished, rhythmical articulation, especially on low notes. It is useful in passages such as the Scherzo from Mendelssohn's *Midsummer Night's Dream* and the third movement of Rimsky-Korsakov's *Scheherazade* suite, both of which call for rhythmic clarity. The ultra staccato mallet

works well when one player is required to play multiple percussion but has no opportunity to change sticks.

The wood ball mallet is a special effects stick that both romantic and contemporary composers frequently request. Wood sticks produce optimum definition, creating a hard, clattering sound well suited to rhythmic passages in recording.

The cartwheel mallet is intended for soft, velvety rolls and legato strokes. It is particularly well suited for obtaining maximum richness of sound. The core of the stick is a medium hard felt covered with a layer of soft piano damper felt. Some companies manufacture a core that is not flat, but slightly convex to allow the stick to produce a round sound. Exceptionally effective on low note rolls, the cartwheel mallet produces a soft roll on any note of the timpani range. For sustained solo rolls, especially at pianissimo, this mallet is capable of eliciting the optimum beauty of tone.

Finally, there is a custom stick similar to the general purpose mallet except that the former is slightly larger and heavier. Because it is capable of great volume and powerful attacks, it must be employed with discretion, for it can be

# Fundamentals

## Track

overpowering. The custom mallet works well for some compositions of Brahms, Wagner, Bruckner, and Mahler that call for a heavier sound.

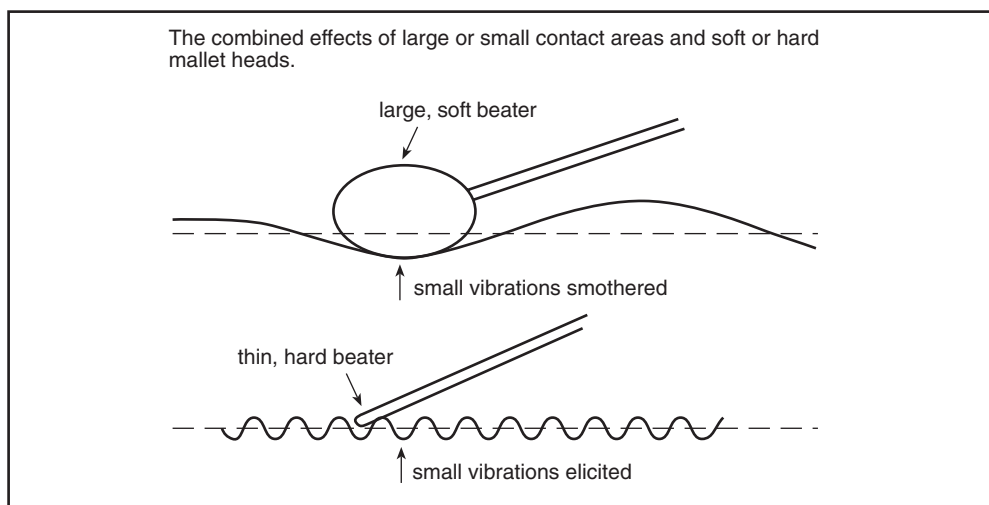
For full, sustained, legato sounds a softer ball type of stick will give the desired sound. For rhythmic clarity, a hard stick will produce clearer definition. According to British composer Reginald Smith-Brindle, when a soft mallet strikes a timpano (singular of the plural timpani), its head gives, spreading momentarily, but just long enough to impede vibrations of short wavelength. Because high overtones are smothered before they have a chance to sound, only the fundamental and lower harmonics are heard, resulting in mellow, deep timbres.

Mallets with hard heads have less give, sometimes none at all. Thus high overtones vibrate freely when a hard-headed mallet strikes the head, and a relatively bright sound is produced.

If a mallet has a large contact area, high overtones will not sound. Conversely, a mallet having a small contact area, such as one with a thin shaft and a small, hard head, will produce high overtones in a marked degree, and possibly render lower sounds almost inaudible.

Soft mallets tend to have large contact areas, hard mallets smaller contact areas, so these two factors normally reinforce each other.

achieve rhythmic clarity, he sacrifices tone quality. Vic Firth, timpanist of the Boston Symphony Orchestra, has noted that it is important for the composer,



The timpanist should use sticks one degree harder than those that may sound suitable to him, because the articulation will sound somewhat less pronounced to the listener than to the timpanist. Joel Leach of California State–Northridge stipulates that timpanists follow this rule particularly when recording. Varying the point of contact will also produce a marked impression of the pitch rising and falling. Playing closer to the rim produces a sharper tone, while playing further toward the center creates a flatter tone. One thing is certain: when a player uses a hard stick to

and ultimately the player or conductor, to determine which is more important in a particular passage—rhythm or sound.

Timpani are capable of producing an array of sounds through the use of various types of sticks, mallets, and other striking instruments. As you can see, many factors can affect a player's decision to choose a particular pair of mallets for a certain musical passage. That is why beginning and professional players, as well as conductors, need to experiment continually. With the many options available today, a player can choose the right equipment for any musical situation.



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## SUGGESTED READING

*Guide to Teaching Percussion*,  
4/e. Harry R. Bartlett and  
Ronald A. Holloway (William  
C. Brown Company)

*Contemporary Percussion*,  
Reginald Smith-Brindle  
(Oxford University Press)

*The Logic of it All*, Anthony J.  
Cirone and Joe Sinai (Cirone  
Publications)

*New Music Notation*, David Cope  
(Kendall/Hunt)

*Percussion Symposium*, Vic Firth  
(Carl Fischer)

“Some Thoughts on Timpani and  
Intonation.” Ted Frazeur  
(NACWPI Journal, Volume 18,  
Number 3)

*Timpani*, Percussion Education  
Series Number 12. George  
Frock (Selmer-Premier)

*Percussion Manual for Music  
Educators*, Joel Leach (Henry  
Adler)

“Percussion Notation,” Vaclav  
Nelhybel ( *The Instrumentalist*,  
June, 1975)

*Standardization of Percussion  
Notation*, Percussive Arts  
Society (the Percussive Arts  
Society)