

Timpani Tuning

by J.B. Smith

Several issues must be addressed in order for a young percussionist to develop the skills needed to play the timpani: technical facility, tone production, instrument care and tuning. Of these, tuning is often the most difficult to learn. Ear-training should be regular part of a percussionist's study.

A basic course of study can progress as follows:

- Learn to match pitches. Using a pitch pipe, piano or keyboard percussion instrument, sing pitches after they are played.
- Learn intervals so that pitches can be derived from a reference tone (i.e., tuning fork). Begin by associating intervals with familiar melodies (like the perfect fourth that opens "Here Comes the Bride").
- Learn to "sing" counts during rests to make pitch changes. By combining pitch singing with rest counting players can be assured that they will both tune accurately and play in time.

As an example, during a two bar rest, a C on a 26" drum must be changed to a D. Sing the counts in the silent measures on the pitches that will be heard on the drums. In the first measure sing the counts "1-2-3" on the pitch C, on count "4" glissando from C to D while flicking the head with a finger or lightly tapping on the head with a mallet. In the second measure sing the four counts on the D pitch. By singing the glissando, the voice matches the sound of the timpani as the tension of the head increases. This allows the ears to better hear the change so that the feet can "put on the brakes" at the correct point. Musical example 1 is a short exercise which requires that a pitch change be made. During measures 3 and 4 the top drum is raised from C to D. In measures 7 and 8 the drum is returned to its original pitch. In example 2 the same part is shown with the sung counts written into the part. A good method book that can be used for this purpose is the Friese-Lepak Timpani Method. Starting on page 51 there are numerous short exercises which require pitch changes. Singing parts added in the rests insure that the pitch changes and rest lengths are accurate.

Tuning gauges have helped to alleviate some of the tuning problems experienced by timpanists, especially those of young players. More advanced players, however, must become fluent with tuning principals and interval relationships. Just as a trumpet player learns to adjust a slide in performance to accommodate tuning adjustments, so must the timpanist be able to match the pitches of an accompanist or the other members of an ensemble.

Timpani Tuning Exercises Example 1

Example 1 consists of three staves of music in 4/4 time. The first staff starts with a measure number '1' below the staff and contains a sequence of quarter notes: G2, A2, B2, C3, D3, E3, F3, G3. The second staff starts with a measure number '5' below the staff and contains a sequence of quarter notes: G2, A2, B2, C3, D3, E3, F3, G3, followed by a half note G3. The third staff starts with a measure number '9' below the staff and contains a sequence of eighth notes: G2, A2, B2, C3, D3, E3, F3, G3, followed by a whole note G3. Above the first two staves, there are horizontal lines with the number '2' above them, indicating a two-measure rest.

Example 2

Example 2 consists of three staves of music in 4/4 time. The first staff starts with a measure number '1' below the staff and contains a sequence of quarter notes: G2, A2, B2, C3, D3, E3, F3, G3. The second staff starts with a measure number '5' below the staff and contains a sequence of quarter notes: G2, A2, B2, C3, D3, E3, F3, G3, followed by a half note G3. The third staff starts with a measure number '9' below the staff and contains a sequence of eighth notes: G2, A2, B2, C3, D3, E3, F3, G3, followed by a whole note G3. Above the first two staves, there are horizontal lines with the word 'gliss' above them, indicating a glissando. Below the first two staves, there are 'Sing:' markings with the numbers 1, 2, 3, 4, 1, 2, 3, 4, indicating a vocal line.



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Dr. J. B. Smith is presently Associate Professor of Music and the Coordinator of Percussion Studies at Arizona State University. He is director of the ASU Percussion Ensemble, which toured Russia and Poland in 1990 and performed at the Percussive Arts Society International Convention in Anaheim in 1991. The group recently commissioned and premiered Anthony Braxton's *Composition No. 174 for Percussion Ensemble and Constructed Environment* and Mary Ellen Childs' *Crash*. Dr. Smith also directs the Pandevils Steel Drum Band. He served as principal percussionist with Ensemble 21, a contemporary music group under the direction of Arthur Weisberg, as principal percussionist with The Daniel Lentz Group which recently performed at the Interlink Festival in Los Angeles and the Bang on a Can Festival in New York, and is the music liaison for ASU's Institute for Studies in the Arts.

He received his Bachelor of Music Education degree from Baylor University where he studied with Dr. Larry Vanlandingham, his Master of Music in Percussion Performance and Literature degree from the university of Illinois where he studied with Prof. Tom Siwe and his Doctoral of Musical Arts degree from the University of North Texas where he studied with Dr. Robert Schietroma. Previously, Dr. Smith was on the music faculties of Tarleton State University in Stephenville, Texas and Humboldt State University in Arcata, California. He has written articles for *The Instrumentalist*, and *Percussive Notes* and served as president of the Arizona chapter of the Percussive Arts Society.

Dr. Smith is also active as a composer, with numerous works published by Whole>Sum Productions Press, and is a veteran of many interdisciplinary productions, such as *Reversing the Spell* with composer Robert Kaplan and John Mitchell, *The Nose* by Elizabeth Egloff, and *The Binary Wheel* with light sculptor Milton Komizar, in which he participated in various capacities as musician, photographer, airbrush artist and slide projection designer.