HOW TO BUY A MARIMBA OR VIBRAPHONE

By David Steinquest

Orchestra bells are the most called-for keyboard percussion instrument in band and orchestra literature and steel bars provide the best sound and durability. Bells can even cover some chime, vibraphone, or celeste parts. Xylophone is the basic “wood-sound” instrument and can cover some marimba parts. The synthetic bars don’t sound as good as wood, but their ability to take a beating in a school situation is the most important consideration. Although orchestra bells can cover chime parts, there really is no substitute.

History

The keyboard percussion instruments are the descendants of the primitive xylophone, which developed in both Asia and Africa. The player, seated on the ground, laid a few pieces of wood of different pitches across his legs and struck these crude bars with sticks (ouch!). A pit dug between the legs served as a resonating chamber. Later, the bars were laid on two parallel logs, again using a pit as a resonator. At some point, the bars were attached to a frame and hung from the player’s waist. As the instrument became more complex, the Asian xylophone employed a trough as the resonator under the suspended bars, while the African xylophone used a gourd as a resonator under each piece of wood. The xylophone appeared in Europe in the Middle Ages as the strohfiedel (straw fiddle). The instrument consisted of wooden bars resting on ropes of straw. It was not until the 19th century that the xylophone was recognized as a solo instrument and made its first appearance in the orchestral repertoire in Saint-Saens’ Danse Macabre (1874).

Marimba literally means voice of wood. The primitive form of this instrument was brought to South America in the early 16th century by Africans taken there as slaves. In Guatemala, where the marimba is the national instrument, wooden resonators were fashioned to replace the African gourds. It was here that the first chromatic instrument with a double keyboard was built by Sebastian Hurtado in 1894. The first modern marimbas were manufactured in the U.S.A. around 1910 by J.C. Deagan and U.L. Leedy. Substantial improvements were made by C.O. Musser in the 1930s.

The vibraphone was invented in 1916 by Hermann Winterhoff and given its name by George Way. Both men worked for the Leedy Drum Company. A motor mechanically raised and lowered the resonators creating a vibrato effect. In 1921, the basic design used today was developed. Revolving discs, placed at the upper ends of the resonators, alternately open and close to create vibrato.

Which Instrument to Purchase First

Which instrument to purchase first depends on the emphasis of your program. If you have a strong jazz band, you probably should consider buying a vibraphone. However, my recommendation in most situations is to get a marimba first. It is the primary solo instrument of the percussion keyboard family and has a wealth of “classical” literature written specifically for it.

Choosing a Marimba

There are quite a few considerations when choosing a marimba. I recommend synthetic bars for a school situation, especially if it’s for band and will be used outside. The keyboard is more durable and will not go out of tune. If the instrument is for indoor use exclusively and you prefer the warmer, more natural sound of wood, I suggest spending the extra money for rosewood. The alternative woods are not as resonant and are softer, making them less durable. One way to save money is to buy a manufacturer’s “less fancy” frame. The front resonators don’t have “dummies,” where there is no accidental bar or false tubes in the high register, and the instrument has more simply constructed end pieces. The marimba may be less aesthetically appealing, but it’ll sound just the same. If your instrument will be used for both concert and marching situations, you should invest in the heavy-duty frame some companies offer.

Marimbas are currently available in ranges from three to five octaves. The three-octave (F3 to F6; “middle C” is C4) is serviceable as a beginner

instrument, but the literature quickly exceeds the lower and upper range limitation. These instruments also have narrow bars, which cuts down on resonance. Although the four-octave instrument (C3 to C7) was the standard in the middle of the 20th century, most of the literature written in the last 25 years extends beyond its lowest note. Many of these instruments are also produced with narrow bars. The standard marimba range has rapidly expanded through 4 1/3 (A2 to C7) to 4 1/2 (F2 to C7) to five octaves (C2 to C7). This five-octave marimba is a large, rather unwieldy instrument and at present is available only with a wood keyboard, making it quite expensive for a junior high or high school situation. I would recommend buying either a 4 1/3 (Low A) or 4 1/2 (Low F) marimba, depending on your budget and the requirements of your students' literature.

Choosing a Vibraphone

Choosing a vibraphone is not quite as difficult. The standard range is three octaves (F3 to F6). I would suggest spending the extra money for a wide-bar instrument. Once again, the narrow bars don't provide as much resonance. Whether to buy silver or gold bars is a matter of taste. Silver bars have a slightly brighter sound; gold provides a warmer sound, but you pay for it. For a school situation, I'd buy the silver bars and save the money for something else. As with marimba, buy the heavy duty frame if this instrument will be used for marching band.

Care and Maintenance

If your instrument didn't come with a cover or if the original has been lost or destroyed, find a volunteer who can make one! Something like flannel provides a soft inner lining. Use a durable material like denim for the outer shell. If the string that runs through the bars breaks, visit your local hardware store and find a comparable diameter cord. Just don't buy a synthetic that's so hard it will rattle against the bars. And while you're at it, get rid of those hard rubber "idiot spacers" between the accidental bars. All they do is make noise! If you have resonator rattle, first make sure there aren't any paper clips, pencils, etc., in the resonators. Some judiciously placed pieces of duct tape work well in those places where the resonator pieces fit together and are bare metal on metal (why do the manufacturers keep doing that?!). I have even crisscrossed cotton string along the pop rivets to silence the loose ones.

Height-adjustability is a nice feature offered by some manufacturers. If your instrument isn't adjustable, you can make simple blocks out of two-by-fours. Just remember to attach something like furniture coasters or quarter-round to keep the instrument from rolling off.

The secret to bar life is to always use the appropriate mallets (soft to hard yarn-wound or rubber mallets for marimba; soft to hard cord-wound mallets for vibraphone). To keep the synthetic marimba and vibraphone bars clean, just use a damp cloth. A "no-wax-buildup" furniture polish is fine for cleaning dirt and fingerprints from wooden bars. If you do have a cracked marimba bar or an excessively out-of-tune keyboard, there are people who do repair and/or replacement. It's a lot cheaper than buying a new instrument!

The vibraphone can also be prone to rattles and squeaks. First, check all the wing nuts to be sure everything is tight. Don't forget to check the damper adjustment which is underneath and between the natural and accidental keys. Sometimes the connector between the pedal rod and damper bar can make noise. Use a little duct tape where there's metal against metal if you have to. WD-40 works wonders to silence those annoying squeaky points at the pedal, damper bar, and rotors. If your rubber pulley stretches out or breaks, you can replace it with a comparable size vacuum cleaner belt.

Bonus Tip

When using marimba and vibraphone (and chimes for that matter) in your band or orchestra set-up, place them closest to the audience in your percussion section so their sound can project without forcing your students to overplay. Orchestra bells and xylophone can be further back in the set-up and still be heard.

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served on the faculties of the University of Arkansas, Albion College, and the National Music Camp at Interlochen, and was a member of the United States Military Academy Band at West Point. He received an M.M. in percussion performance from the University of Michigan where he studied with Charles Owen and a B.M.E. from Northeast Louisiana University where he studied with Stanley Finck and Allen Wojtera. Steinquest has compositions published by Row-Loff Productions, Studio 4 Music, and Pioneer Percussion and is an educational endorser of Ross Mallet Instruments and Vic Firth Sticks.