All-State: Orchestra Room Instrument Survival: Problems, Preventions and Maintenance

presented by J. Michael Smith — reported by Janet Anderson and Mary Beth Vach

Let us say you enter an orchestra room for the first time and you find things are in a disastrous condition. The instruments are in disarray, the room temperature is not suitable for the instruments, and the instruments are in poor playing condition. J. Michael Smith gave many practical solutions to the everyday problems facing teachers with small or even no repair budgets.

Storage and Instruments at Rest Survival

Basic traffic control is important, such as what to do if you need to get up from your chair, or there is a fire drill. You need lanes to come in and out of the section. Students must not to leave instruments in the lane.

Are cellos in hard or soft cases? If they are in soft cases, they tip over when set down and land on the bridge. It is best to lean the cellos against the wall on their side with the bridge against the wall. Or, better yet, store them on a cello rack. Parents should be careful when taking the cello out of the car, in case it rolls. When the cellos are lying on the floor beside the chair, students should make sure the endpin is put in so no one trips over the cello.

Violins and violas should be stored in their cases with the case latched. Don't put the instrument or bow on the chair or stand; they can be easily knocked off. If you have room, put the case by the chair and store the instrument and bow there. Otherwise, find a table or counter.

Keep a broken instrument and bow nearby to show the students what disasters can happen. A damaged cello left in plain view in the rehearsal room can be a reminder to hang the cellos up. A broken bow with a price tag on it speaks volumes.

Basses should be kept out of traffic. Put them in corners, standing up. Rest the corners, not the scroll, of the bass against the wall. Don't prop basses or cellos against a chair; they can easily be knocked over and the neck snapped off. If the floor is cement or a rough surface, try not to slide the bass (or cello) across it. This rubs the edges off.

For long-term care of the instruments, make sure the climate of the room is well regulated. Avoid drafts. A leaky window with a cold air draft in a warm room will cause open seams and top shrinkage cracks. The same thing happens with warm radiators in the room. Store the instruments away from these elements.

The room should be kept at 30-40% humidity. If an instrument is made in Europe where the climate is even but shipped to the United States where the climate fluctuates, it is sure to develop open seams and top shrinkage cracks. Chinese instruments still have moisture in the wood. When they are shipped to the U.S., the wood dries out and again open seams and top shrinkage cracks develop. Buckets of water can substitute for humidifiers.

Dampits and case humidity devices work as long as the instrument is in the case. Homemade humidifiers can be used for the cello and bass by tying a sponge to each end of a shoelace and hanging it from the bridge. This too works as long as the instrument is in the case.

When going from a cold climate to a warm climate, leave the instrument in the case until the temperature has adjusted.

Emergency and Survival Repair for the Orchestra Room

There are some emergency repairs that a string teacher can do for the instrument if getting to a repairman is not possible at the moment.

To temporarily close an open seam never use Elmer's, commercial hide glue or super glue. Instead, take some warm water and with a paintbrush put the water in the seam and clamp it shut. This warm water will activate the old glue. If you see the glue squeezing out, wipe it off with a damp cloth. Keep it clamped for three to four hours. Use a chin rest as a violin or viola clamp! Cellos and basses need spool clamps. Painters' tape or drafting tape can be used carefully (test it first) because they have less glue. Check the varnish first for any possible chipping, then pull the tape securely around the seam from the top of the instrument to the bottom. Duct tape is to be avoided at all cost!

For a top crack the safest thing to do is take the instrument to a repairman. Don't try doing it yourself. If the instrument is really buzzing and there is no time to take it to the shop before a performance, wedge some bunched up paper in the seam. Don't go too far. This will temporarily take away the buzz but will have some effect on the sound.

Bridges need to be checked often, especially when changing strings. Make sure the center of the leg is matched with the inside notch of the f-hole. Move the bridge with two hands, sitting down, thumbs on the bottom, fingers on top. Don't just grab hold of the top of the bridge and try moving it; you could snap the bridge in two or cause the bridge to fall down. The back of the cello bridge should be perpendicular to the top, and the front of the bridge may lean to the tailpiece. The feet will be flat unless the bridge is warped.

When changing strings it is a good idea to put the graphite from a pencil in the groove of the bridge. This will enable the string to move smoothly over the bridge and prevent it from warping. This will also keep the string in good condition. Mike's preference on strings is Prelude. Supersensitives tend to break more easily; Dominants tend to open up more.

You can save money by washing the horsehair, carefully. Using cool (not warm) water and dish soap, first knock off as much rosin powder as you can. Then, using your fingers as a sponge, wash the hair. Start two inches from the frog and tip and wipe away from the frog and the tip to avoid getting the plugs wet. After you've washed the hairs tighten up the bow hair and let it dry. In the winter drying takes about ten minutes, and in the summer it take about one hour. Never use alcohol as it will melt the rosin right into the hair.

The middle of the year is the best time to clean pegs. Use steel wool or sand paper, then peg dope.

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