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Take the Harm out of Harmonics

Harmonics - they sound so lovely when played well, but they can be so elusive! After some experimentation, I think I finally cracked the mystery of their capriciousness.

Harpists all know to play a harmonic in the exact middle of the string, measuring from where it is held by the groove, discs or levers. That is why a harmonic on an open string is higher than one in sharp. However, sometimes the harmonics still sound strangled, instead of having that ideal bell-like sound. How do we get the perfect harmonic consistently?

For the right hand, position your thumb on the string you wish to play. The rest of the fingers should be flat in the palm, forming a relaxed fist. The front of the second finger should be at a ninety-degree angle to the exact middle of the same string, with the palm facing the floor. Then, back the fist away to the right of the string about 1/8 of an inch or half a centimeter. Your thumb is still on the string and your fist is poised near the string but not on it. Twist your wrist, bringing the second finger knuckle into contact with the string, playing your harmonic. Now the palm (with the fingers still flat against it) should be facing the strings. This works especially well in the higher notes. The same concept works for the left hand.

Play left hand harmonics by stopping the string with the side of your palm that is directly opposite your thumb. This works for single or multiple harmonics. Some people prefer to use the base of their thumb but that only works for single harmonics.

Double and triple harmonics in the left hand can be tricky, especially if the accidentals make it impossible for your palm to line up right in the middle of the strings. Your palm goes up, so if the harmonics are all flats, naturals or sharps, great! However, if the middle harmonic is a sharp and the top is natural, now what? If possible, change the sharp to its flat equivalent, so that now the harmonic chord lines up nicely with the curve of your palm.

It is vitally important to know exactly at what height you sit, so that you can set your chair in that position before the concert. One fraction of an inch up or down, and your muscle memory will set you up for disaster. Your hand will go to its usual spot on the string and THUD! The heartbreak of harmonics-failure! Even wearing heels after practicing all week in bare feet or flat slippers can be enough to cause this dismal state of affairs. Another variable that can wreak havoc is having a different harp at home than the one you will be performing on. The size of the harp affects where the harmonics sit in relation to where you are sitting. There are variations even among harps of the same style from the same factory, depending on what year they were built. If you are worried about a particular set of harmonics, as a last resort, mark them on the string with a bit of felt marker. It will wear off after a while.

Some strings have terrible harmonics. Try replacing the string if you can never get a good harmonic on it. Some harps also have less than stellar harmonics. It might not be you! Try your technique on a friend's harp. Then buy her harp.

Harmonics are usually played where they are written, with a little "o" above the note, or indications like *sons harmoniques*. In some cases, they are played where they sound. Salzedo wrote his harmonics this way. Mahler's Symphony #3 has very confusing harmonics, some of which are too high to be played where they are written. One could conclude that they should all be played an octave down or that some of them can be played where written. In case of confusion, the conductor will tell you what he or she wants. When a composer wants the higher note, but the string is too short to produce a harmonic, you can fake it by playing an open octave. If a composer consults you, suggest doubling the iffy harmonic with a glockenspiel, celeste or triangle for a similar effect.

In some orchestra pieces, such as Ravel's *Mother Goose*, and Walton's Violin Concerto, you have to play a whole phrase of harmonics. It is very tricky to do these well while also looking at the conductor. Memorize these passages so that you can keep your eyes on the strings and listen to the other instruments around you for ensemble. If the harmonics are totally solo, at least you can look at the conductor and the strings without being distracted by looking at the music too! This can avoid a nasty case of whiplash.

At the beginning of Rimsky Korsakov's *Russian Easter Overture*, there are some fast solo harmonics which accompany first the flute, then the violin. Sometimes I go to Plan A: I play my left hand harmonics with the same technique as the right hand, so that I can alternate hands while playing on strings that are too high for the normal technique. Or, Plan B: if the orchestra takes a moderate tempo, then you can play part-way up with your left hand and continue with your right. Plan A is only for when it too fast for Plan B to be workable. Listen to the melody because you will not have time to look up!

Sometimes the composer has written something completely impossible, i.e. the fast harmonics in *I Pini de Gianicolo* in Respighi's *Pines of Rome*. If the section is too fast to play as harmonics, play it up an octave as regular notes. In these cases, try to make it sound as much as possible like what the composer wanted, but harps have their limitations and there is no point in going down with the ship. Just make it beautiful and convincing.