

# **WRITING FOR THE HARP: A Practical Understanding of This Unique Instrument, From a Performer's Perspective**

**by Carolyn Mills, Principal Harpist, New Zealand Symphony Orchestra**  
*(These are general guidelines only. Consult a harpist near you for more in-depth info.)*

## **THE HARP IS NOT A PIANO ON ITS SIDE**

**Often composers want the sound of the harp, with the capabilities of the piano. This will only lead to frustration! The main differences are outlined below.**

### **The Basic Movement – Pull Vs Push**

It is a common misconception that the harp is similar to the piano. Not so! The two instruments are almost entirely different, with fundamentally different movements required to play them. The piano has the mechanical advantage of keys which then move hammers, while the harp is a plucked instrument. The basic movement required of the finger on the harp is a pulling motion – unlike on a keyboard instrument, where it is a downwards pushing motion. With every pull, the finger must travel a greater distance, as it closes into the hand; it is more a complex physical movement than a push, and can not be repeated as quickly. A piano key is fixed in space and never moves – unlike a vibrating harp string, whose position in space can change dramatically when it has just been played. Controlling thick vibrating strings with accuracy can be a difficult challenge.

### **Just Four Fingers**

Harpists use only four fingers of each hand – this can be thought of as 20% less dexterity available to a harpist than to a pianist. A harpist will sometimes need two hands to play a single line, especially in a fast tempo, where a pianist could use one hand with its five fingers all moving downwards!

## Repeated Notes

Quickly repeating notes on the harp will have a totally different quality than on the piano. The moment the harpist replaces a finger on a vibrating string, the sound is muffled. A sustained or fluid sound while repeating the same note (or notes) rapidly is difficult or impossible. Enharmonics can successfully be used for repeating some notes, e.g. C sharp-D flat, etc. Also, fast repeating or alternating notes or chords usually require two hands to execute, and therefore should be avoided below the bass clef, since the right hand cannot reach the lowest strings. (Ex. 1: Avoid – notes repeat too quickly, awkward and unresonant. Ex. 1a: Rewritten – fingers do not dampen strings immediately. Ex. 1b: Better yet – gives each note space to fully articulate and resonate, with a more flowing result. Ex. 2: Enharmonically repeated notes.)

## Low and High Registers

Because the harp has nearly the same range as a piano, it is easy to assume that the wide range can be treated similarly in both instruments, but this is not the case. The pianist can articulate exactly the same passages with exactly the same technical ease in any octave – the harpist cannot. The spacing between the strings is not equal all the way up the instrument; spacing is wider in the bass, because the lower, thicker strings vibrate much more, and require equivalently more energy from the fingers to play them. Low, resonant bass strings are usually best reserved for colour – individually accented single notes or open chords, rather than fast figures, clusters, or thick chords, which are awkward to control and sound muddy and undefined. (Ex. 3: Avoid. Ex. 4-5: idiomatic.) Conversely, the highest register of the harp can sound very penetrating, but because there is very little room for the hands on the shortest strings, it is difficult to play with great technical facility in this range. Fast and/or technical passages are more successful in the middle octaves of the harp (not much above or below either staff) and should be avoided in the extreme registers.

## Voicing

Over-voicing on the harp is unnecessary, cumbersome, inhibits phrasing, and detracts from the natural resonance and overtones. Often, less is more. The harp will continue to resonate and produce harmonic overtones well after the note or chord is played (unless the strings are damped). Leaving space for this unique sonority of the harp is usually better than filling the chord too full. Similarly, in most cases a single arpeggio or scale can be played more forte, and will sound more brilliant, than a double arpeggio or scale, especially at a fast tempo. (Ex. 6-7: avoid. Ex 8-9: idiomatic. Ex. 10: avoid. Ex. 11: idiomatic.)

## THINGS YOU NEVER KNEW YOU COULD DO ON THE HARP

### Chromatic, Powerful, Percussive, Melodic, and Expressive

Yes, the harp can be **chromatic** – just not too fast at the same time! Harpists can move pedals at the rate of 1-2 per second in short bursts, but it is extremely difficult to keep this up for an extended passage. Also it is important to know which pedals are on which side of the harp, as moving 2 pedals on one side at the same time can be difficult or impossible. (The pedals are arranged DCB / EFGA). An average of about 1-2 pedal changes per measure at a moderate tempo is very manageable in general. (See Takemitsu's *Toward the Sea III* for Alto Flute and Harp, or the Intermezzo and Finale from Bartok's *Concerto for Orchestra*. Also Ex. 12, idiomatic at slow tempo.) While you should keep track of pedal changes for your own work, do not write pedal changes in the part without consulting a harpist. There are several different systems for writing these in, and it is usually best to leave it to the performer. Also note that there is no such thing as a slow glissando pitch change. Pedal slides are immediate half step changes (or buzzes, for special effects).

Playing alone or with a few instruments, the harp can sound **loud and powerful**. But because the sound begins to decay immediately, it can be easily covered up by sustaining instruments playing mezzo-forte or louder. In a solo context, a wide dynamic range is easily possible. In orchestra, the harp does not project well through heavy scoring, but adds colour even in a thick texture. (Think of the end of Stravinsky's *Firebird*, or the last movement of Sibelius' *First Symphony*.) If you want the harp sound to come through clearly, score lightly, or use two or more harps.

The harp can also be used like a **percussion** instrument (within reason!). The shortest strings are penetrating in sound, and accents in the high registers project extremely well. Listen to the beginning of the second movement of Mahler's *Fourth Symphony*, the opening of the third movement of Debussy's *Sonata for Flute, Viola, and Harp*, or *Shrovetide Fair* from Stravinsky's *Petroushka*. Or explore some of the harp's intriguing special effects (see a harpist near you for details).

In both orchestral and chamber settings, the harp can be **melodic and expressive**. Think of the second movement of the Debussy Trio, *Nocturne* from Britten's *Suite for Harp*, and Shostakovich's *Fifth Symphony*. It is not only the sustaining instruments who can play an elegant phrase.

## THE PHYSICS OF PLAYING THE HARP

### String Tension

Harp strings are thicker and more tightly strung than, say, guitar strings, which means a greater amount of energy is required to make the strings vibrate. The fingers must close all the way into the hand. There is also a much greater distance in space for the hands to travel between registers.

### Extending the Arms

A harpist's arms are constantly in varying degrees of extremity – higher and more forward than almost any other instrument, working always against gravity. This places a tremendous loading on the muscles of the back, shoulders, and arms. For this reason, rests or breaks are needed for both arms in long passages, particularly where the arms are extended either very low or very high in the harp.

The harpist embraces the instrument: both arms encircle the harp, which means the right hand cannot play low in the bass register as it has to reach all the way around the body of the harp. Two hands cannot readily be used at the same time below the bass clef.

### Damping the Strings

Because damping (*etouffe*) takes twice as much time as playing (the fingers have to move twice onto the same string before moving on), fast or technical passages cannot be staccato or *etouffe*. If you want a fast staccato note passage, give it to the piano!

### Harmonics and *Pres de la Table* (two old favourites)

Harmonics and *pres-de-les-table* are only possible in the mid range of the harp (generally not above the treble staff or below the bass). They will also not project through other instruments very well, so orchestral scoring should be light around them. The left hand can play double harmonics within a small interval (a fifth or less) but not higher than about middle C. The right hand plays only single harmonics. Harmonic passages cannot be played too quickly, or too loudly.

## Use More Harps!

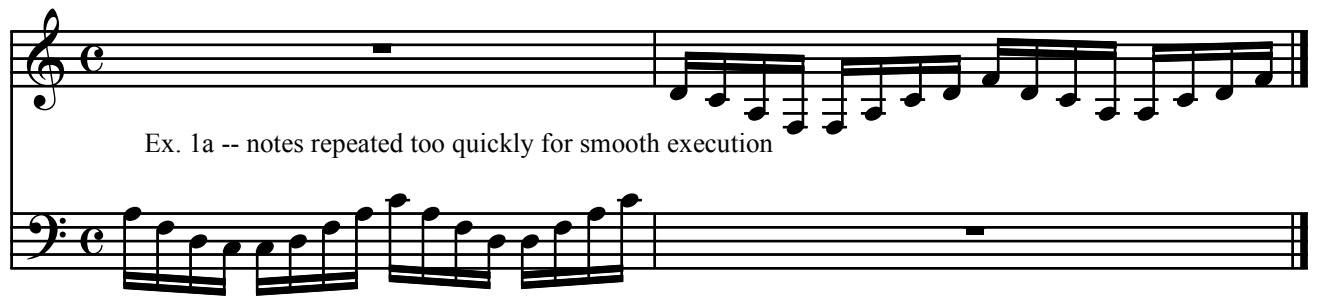
Two harps can be used in orchestral scoring to make more chromaticism possible, by giving each harp a break in which to reset pedals while the other harp plays (see Strauss' *Der Rosenkavalier* and Ravel's *Daphnis and Chloe*, for example.) The same solution can also be applied when fast repeated notes or other technically difficult passages are desired – alternating between two harps or sharing parts between two players can often be much more successful.

*In orchestral writing, be aware that your piece is not the only one that a musician has to prepare for performance. Try to make it manageable in the context of a concert with many other works to be learned.*

*If you are writing a solo or chamber work for harp, you may be able to extend these boundaries somewhat, but do consult a harpist along the way.*

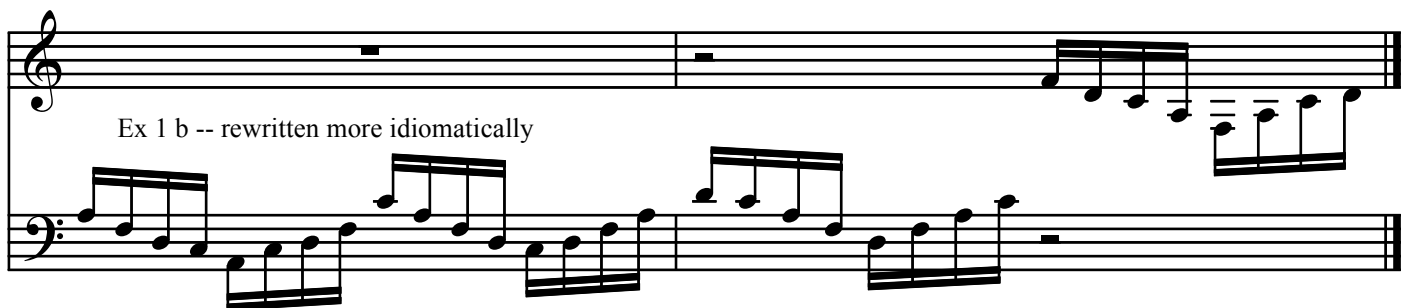
*There are many other good sources of information about writing for harp, including special effects. Check out the harp music websites as well as orchestration books.*

*I am always happy to talk with composers about their ideas. Please get in touch!*  
[www.nzso.co.nz](http://www.nzso.co.nz)




Ex. 1a -- notes repeated too quickly for smooth execution

This example shows two staves in common time. The upper staff has a whole rest followed by a sixteenth-note scale starting on G4. The lower staff has a sixteenth-note scale starting on G3, with some notes beamed together in pairs.



Ex 1 b -- rewritten more idiomatically

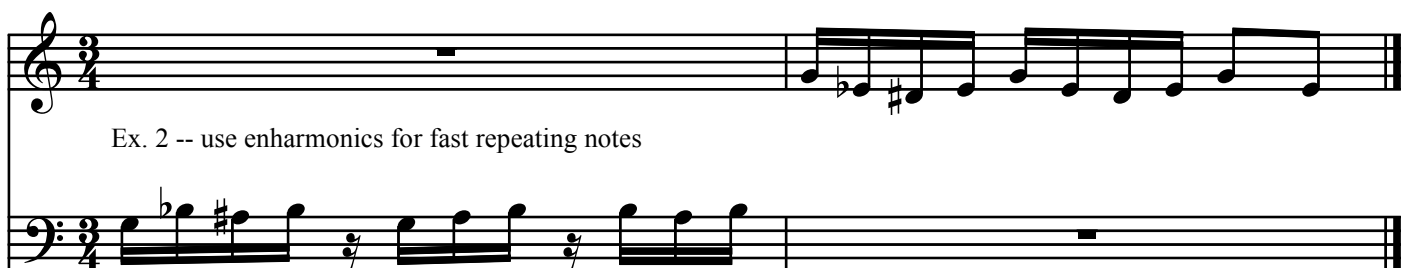
This example shows two staves in common time. The upper staff has a whole rest followed by a quarter-note scale starting on G4. The lower staff has a quarter-note scale starting on G3, with some notes beamed together in pairs.



Ex. 1 c -- even better, more resonant and smoother

This example shows two staves in common time. The upper staff has quarter-note scales starting on G4 with quarter rests. The lower staff has quarter-note scales starting on G3 with quarter rests.

**Allegro Vivace**



Ex. 2 -- use enharmonics for fast repeating notes

This example is in 3/4 time. The upper staff has a whole rest followed by a quarter-note scale starting on G4. The lower staff has a quarter-note scale starting on G3, with some notes beamed together in pairs.

Ex. 3 -- Please don't! This is piano writing, not harp

Ex. 4 -- effective use of extreme bass register

**Adagio**

Ex. 5 -- effective use of low bass register, Mahler-esque

**Moderato** (♩ = c. 108)

Ex. 6 -- voicing too close, fingers dampen vibrating notes, awkward 5-note figures

**Allegro Vivace**

Ex. 7 -- fast double arpeggio -- awkward and less sonorous

**Allegro Vivace**

Ex. 8 -- more forte, more sonorous single arpeggio

**Moderato**

Ex. 9 -- idiomatic arpeggios, open voicing, four-note patterns

Ex. 10 -- voicing too heavy especially in bass.

**Moderato**

Ex. 11 -- Idiomatic open voicing in bass, not too thick in treble

**D ♯ C ♯ B♭ E♯ F♯ G ♯ A♭**

**Very Slow**

A ♯ Eb A ♯ Eb  
D ♯ C ♯ A ♯ D ♯  
damp damp

Ex. 12 -- chromaticism possible at very slow tempo