WRITING FOR THE HARP IN THE ORCHESTRA

A Practical Understanding of This Unique Instrument, From a Performer's Perspective

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(These are general guidelines only. Please consult a harpist near you for more in-depth info.)

THE HARP IS *NOTHING* LIKE THE PIANO

Often composers want the sound of the harp, but with the capabilities of the piano.
This will not work! 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; on the harp, the fingers have to move *between* the strings, place, and pluck. The basic movement required of the finger on the harp is a pulling motion into the hand – unlike on a keyboard instrument, where it is a downwards pushing motion. With every inwards 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. Harpists' thumbs work *in opposition* to the fingers, going a different direction – again a complex set of movements.

A piano key is "fixed" in space and never vibrates – unlike a 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.

When you are writing for the harp, please forget everything you know about the piano!

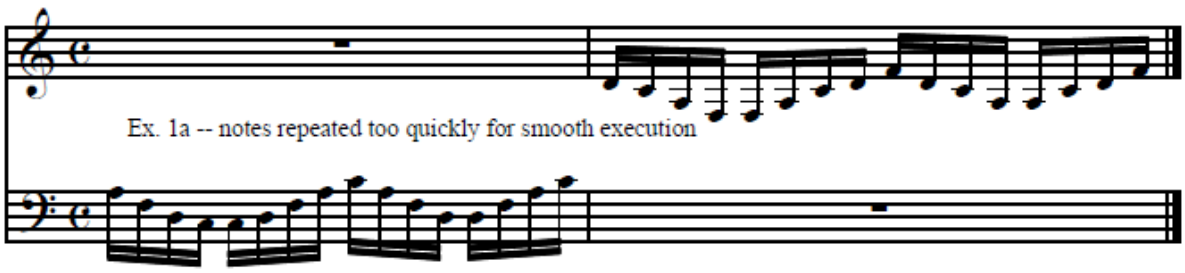
Just Four Fingers

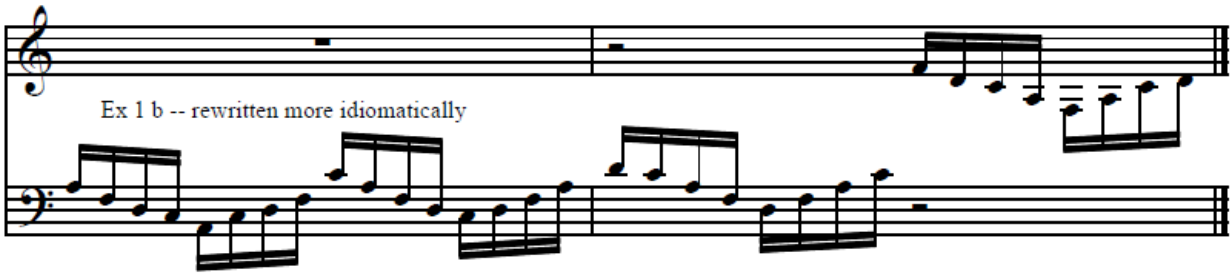
Harpists use only four fingers of each hand – this can be thought of as 20% less dexterity available to a harpist than to a pianist. A harpist will sometimes need two hands to play a single line, especially in a fast tempo, where a pianist could use one hand with its five fingers all moving downwards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

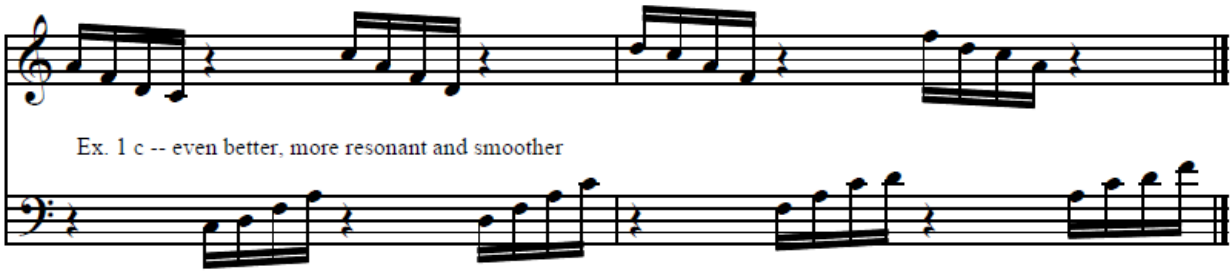
Repeated Notes

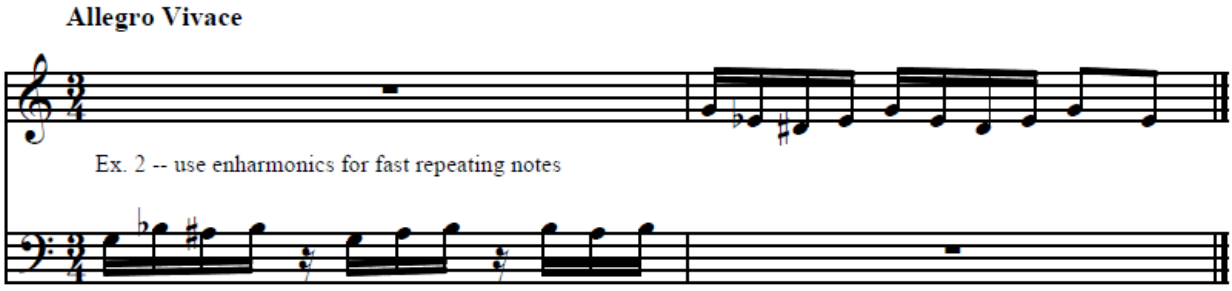
Quickly repeating notes are VERY awkward and difficult on the harp. The moment the harpist replaces a finger on a vibrating string, the sound is muffled. A sustained or fluid sound while repeating the same string (or strings) rapidly is virtually impossible. Enharmonics can successfully be used for repeating 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. 1a: Avoid – notes repeat too quickly, two hands are playing over each other, result is awkward and unresonant.
Ex. 1b: Rewritten – fingers do not dampen strings immediately.
Ex. 1c: Better yet – gives each note space to fully articulate and resonate, with a more flowing result.
Ex. 2: Enharmonically repeated notes.)









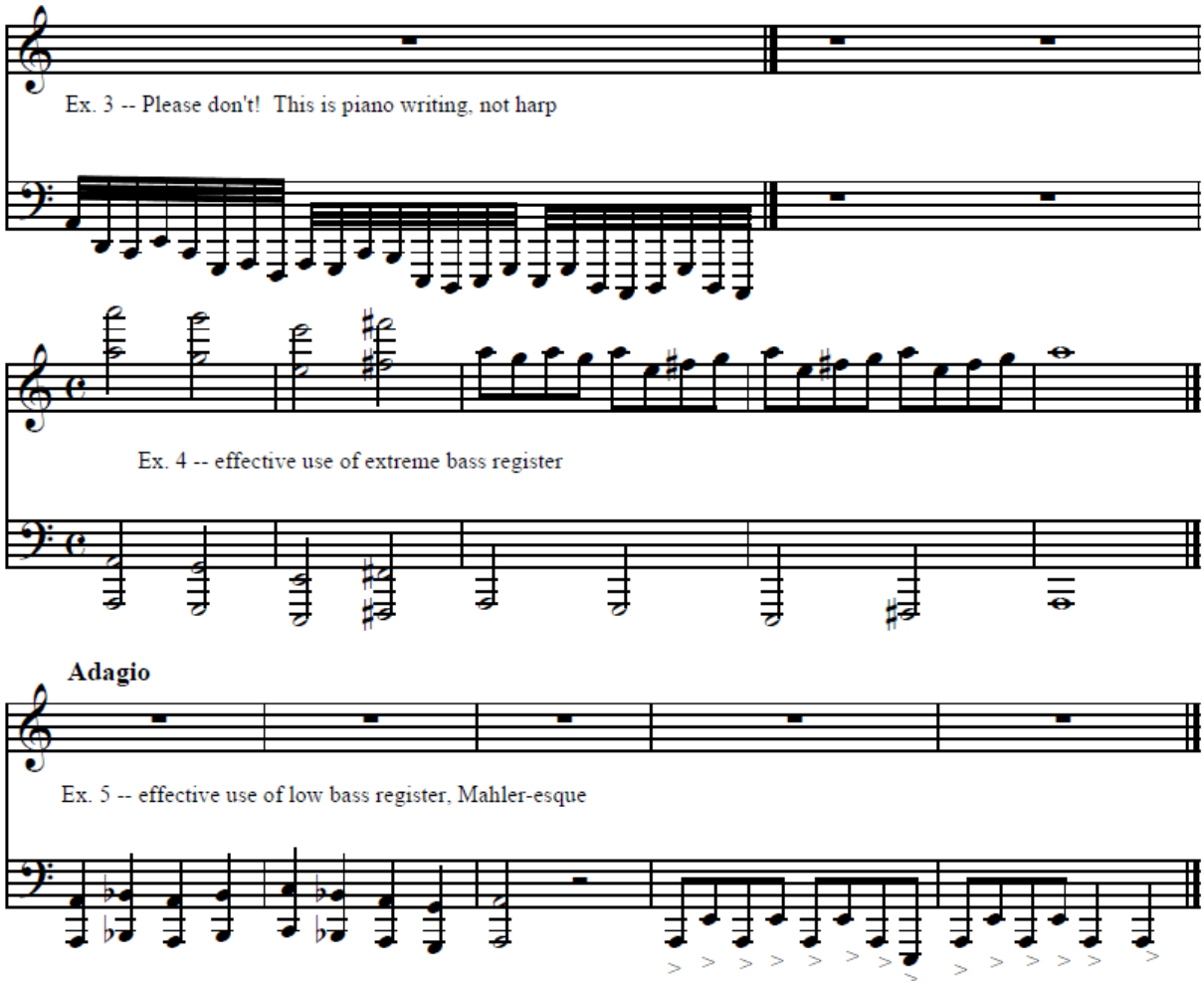
Low and High Registers

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 definitely 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 different throughout the instrument; spacing is wider in the bass, because the lower, thicker strings vibrate much more, and require equivalently more energy from the hands 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. 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, and the arms are very flexed and near the face, it is not possible to play with great technical facility in this range. (Remember, strings in the highest octave are only a few centimetres long! They do not sound very musical or melodic!) Fast and/or technical passages are much more successful and resonant in the middle octaves of the harp (not much above or below either staff) and should be avoided in the extreme registers.

Ex. 3: Avoid.

Ex. 4–5: idiomatic.



Voicing

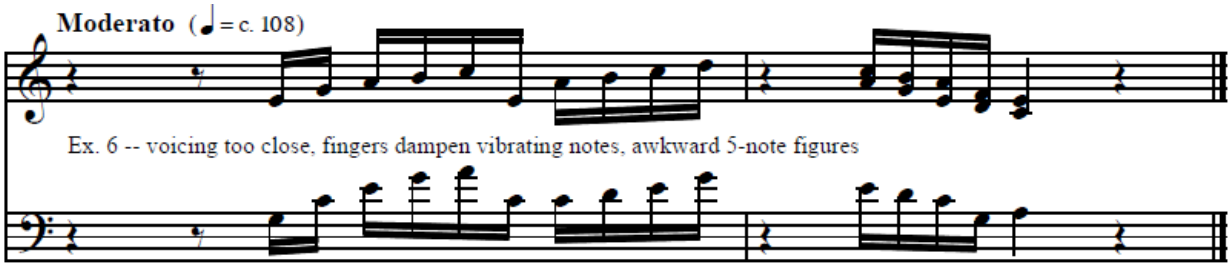
Over-voicing on the harp is unnecessary, cumbersome, inhibits phrasing, and detracts from the natural resonance and overtones. Often, less is more. The harp will continue to resonate and produce harmonic overtones well after the note or chord is played (unless the strings are damped). Leaving space for 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.

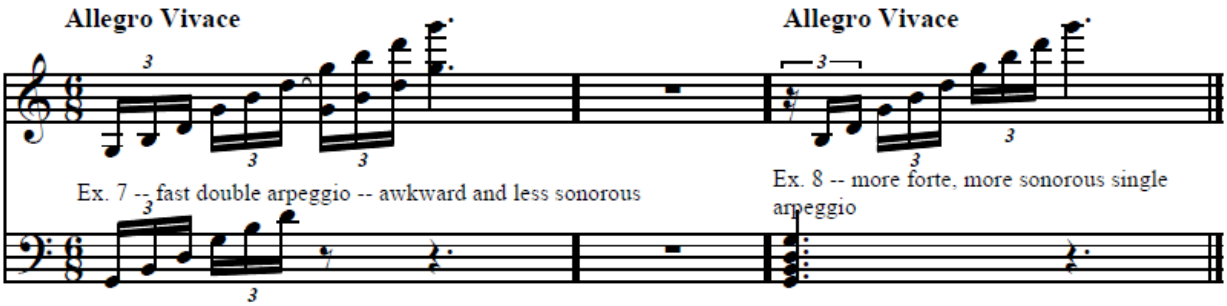
Ex 8-9: idiomatic.

Ex. 10: avoid.

Ex. 11: idiomatic.

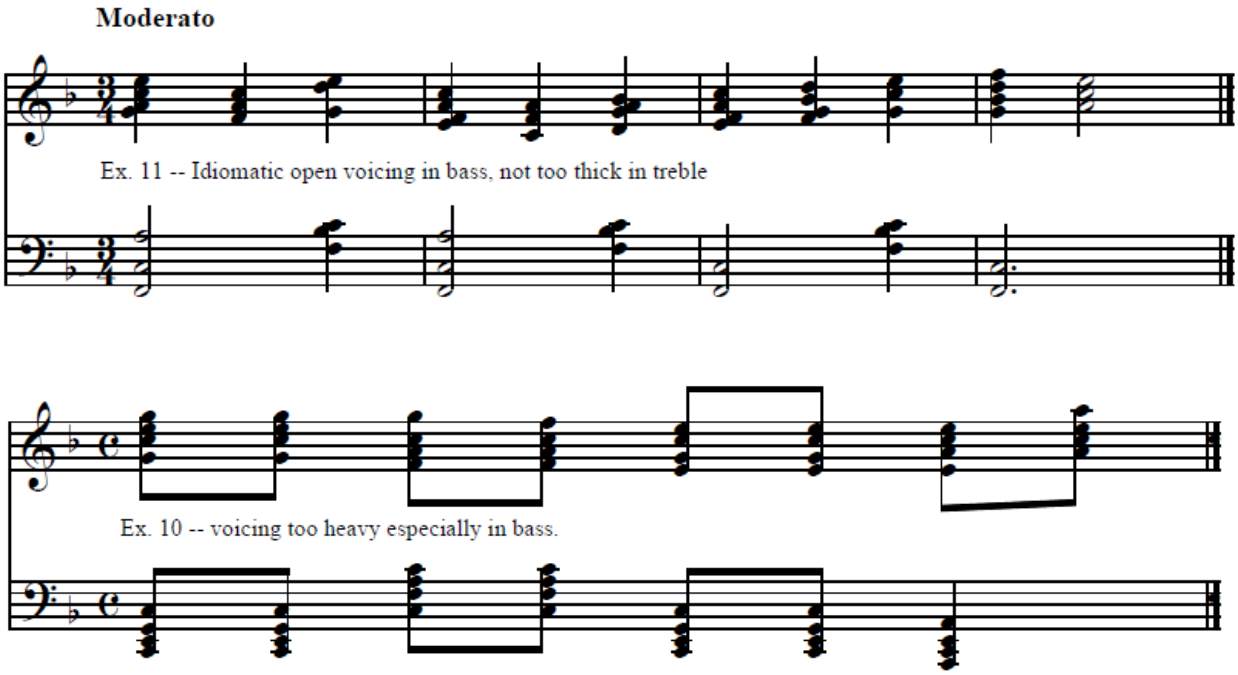


Ex. 6 -- voicing too close, fingers dampen vibrating notes, awkward 5-note figures



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

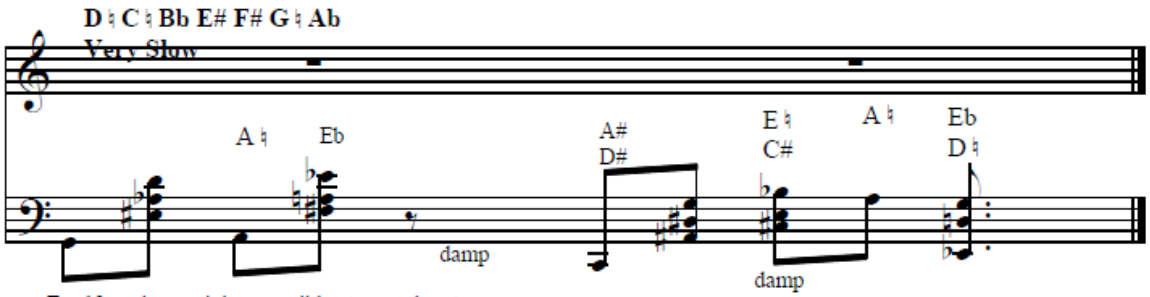
Ex. 8 -- more forte, more sonorous single arpeggio



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).



Ex. 12 -- chromaticism possible at very slow tempo

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!

KEEP IN MIND....

String Tension

Harp strings are thicker and much 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. Our bodies get tired when they are not allowed breaks – just like a string or wind player's body.

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 louder than mf, and they do not project over a thick orchestration.

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.