

ABSTRACT  
CONSIDERATIONS, EXAMPLES, AND EXPLANATIONS  
FOR THE NON-HARPIST COMPOSER

By

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This project report serves as a resource to provide composers with the tools to tackle the complexities of writing for the harp. This will be achieved by considering the mechanical aspects of the harp, as well as analyze the strategies celebrated composers Maurice Ravel, Henriette Renié, and Carlos Salzedo employ in their own compositions to utilize the intricacies of the instrument to their advantage. Pieces discussed include: Ravel's *Introduction et Allegro*, Renié's *Pièce Symphonique*, Salzedo's *Five Poetic Studies for Harp Alone* and his arrangement of Claude Debussy's *Children's Corner Suite*. A list of reference and instructional books will be included in the appendix for further study.



CONSIDERATIONS, EXAMPLES, AND EXPLANATIONS

FOR THE NON-HARPIST COMPOSER

A PROJECT REPORT

Presented to the Bob Cole Conservatory of Music

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## PREFACE

The purpose of this paper is to examine the characteristics of the harp and that of proper performance practice that composers must understand before writing for the instrument, making it easier for composers and arrangers to translate aspects of their own writing in consideration of the capability of the performer. I will first consider the mechanical facets of the harp and how these attributes affect performance practice, and then analyze the strategies revered composers Henriette Renié, Carlos Salzedo, and Maurice Ravel employ to utilize the intricacies of the instrument to their advantage.

Writing for harp can be a daunting task, especially for a non-harpist. The complexities of the instrument's mechanism is a mystery, which left unsolved often results in music that is awkward, unplayable, or is easily covered up in an orchestral setting. The modern harpist is accustomed to simplifying and rearranging parts on-the-spot in rehearsals in order to be able to play the music given to them. Although anthropological evidence suggests that the harp has been around since at least 2000 BC, its repertoire is significantly limited compared to other instruments invented much later. This is due not only to the development of the pedal mechanism for chromatic capability, but is also attributed to a limited understanding of the harp caused by the lack of substantial information written on the subject. This paper will attempt to provide composers and arrangers wishing to write for harp with further resources to extend their understanding of the instrument. In addition, I will examine and refer to works by

harpist- and non-harpist-composers to give composers and arrangers insight into their strategies.

It is necessary to note that this paper will focus on writing for the modern day concert grand pedal harp. There are many different types of harps that vary in size and have different mechanisms; however, the concert grand pedal harp is the standard size of harp that is used in present-day orchestras, collegiate instruction, recording sessions, and national competitions. Therefore, when writing for harp in orchestra, it is implied that the piece will be performed on a concert grand pedal harp. This is an important consideration when discussing the range, volume, and capabilities of the instrument. These attributes among others will be explained to provide the reader with a more comprehensive understating of the instrument in order to successfully execute one's ideas.

To describe strategies for writing for harp accurately, works by harpist-composers Renié and Salzedo will be examined. These harpists are two of the most well-known and renowned cultivators of harp technique and notation. Their compositions, as well as technique and notation books, will be discussed. Non-harpist-composer Maurice Ravel's work will also be examined to provide examples of compositional approaches by composers and arrangers who were not harpists themselves. This paper will discuss the techniques these composers employ to hide the limitations of the instrument, and those in which the composers exploit the unique characteristics of the instrument to create effects and textures possible only on the harp.

## CHAPTER 1

### FUNDAMENTAL CONSIDERATIONS OF THE INSTRUMENT

#### The Concert Grand Double-Action Pedal Harp

Prior to discussing even the most basic composing techniques for the harp, it is important for the composer to understand the components of the instrument. The harp is simultaneously one of the world's oldest and newest instruments because of the transformation it has undergone over the years.<sup>1</sup> Variations on the ancient instrument have resulted in several different types and sizes ranging from harps that can fit on one's lap, to harps weighing well over one hundred pounds.<sup>2</sup>

This paper focuses on discussing considerations for composing for the modern concert grand pedal harp (see Fig. 1). This variation of the instrument was not conceived until 1811 by French instrument maker Sébastien Erard, who also contributed key developments for the piano.<sup>3</sup> As music began to stray from classical harmonic conventions, the need for a modulating harp in an orchestral setting became necessary. Erard's invention was a double-action pedal harp. With two rows of disks connected to pedals at the base of the harp, the performer was finally able to modulate while playing.

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<sup>1</sup> Marcel Tournier, *The Harp: A History of the Harp Through the World* (Paris: Henry Lemoine and C<sup>ie</sup>, 1959), 10.

<sup>2</sup> Roslyn Rensch, *The Harp: Its History, Technique and Repertoire* (London: Duckworth Publication, 1969), 12.

<sup>3</sup> Kimberly Ann Houser, "Five Virtuoso Harpists as Composers: Their Contributions to the Technique and Literature of the Harp" (DMA diss., University of Arizona, 2004), 14.

In 1889, Chicago harp makers Lyon and Healy released the first mass produced double action concert grand harp.<sup>4</sup> All classically trained, professional, orchestral and studio harpists play this harp because of its ability play in all twelve keys and to modulate during pieces.

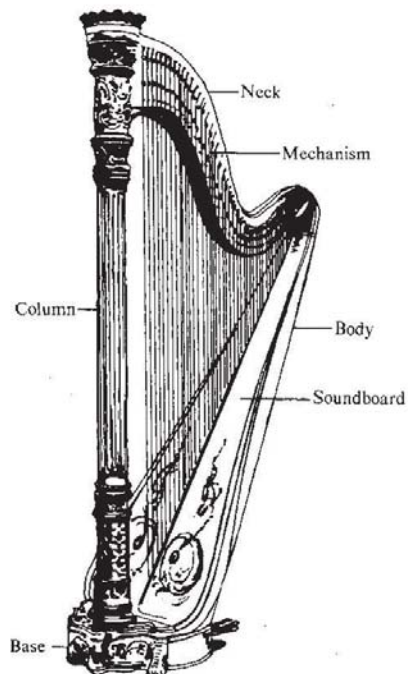


FIGURE 1. Illustration of a concert grand double action pedal harp.<sup>5</sup>

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<sup>4</sup> Beatrice Schroder Rose, *The Harp in the Orchestra* (Houston, TX: Beatrice Schroder Rose, 2002), viii.

<sup>5</sup> Stanley Chaloupka, introduction to *Writing for the Pedal Harp: a Standardized Manuel for Composers and Harpists* by Ruth K. Inglefield and Lou Anne Neil (University of California Press, 1985), 1.

## The Strings

Because the harp is a diatonic instrument by nature, there is a string for every note name. Therefore, with forty-seven strings, the modern concert grand pedal harp spans a range of six and one-half octaves (see Fig. 2).

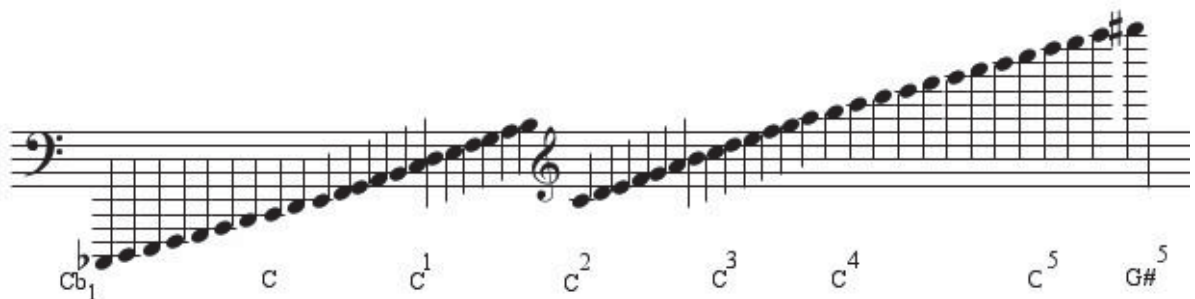


FIGURE 2. The range of a standard concert grand harp.

Each of the forty-seven strings of the harp are knotted at one end and then strung through a hole in the sound board and wound onto the corresponding peg at the neck of the harp using a tuning key. The material of the strings varies depending on the harpist's preference and the range. Some harpists choose to use gut strings for the entire upper and middle register of the harp, others choose synthetic strings as opposed to gut or nylon. Preference of tone of each material of string differs from harp to harp and harpist to harpist.

The top two octaves are typically strung with nylon strings. These are the smallest gauge and brightest sounding strings. The middle range strings are made of

dried, twisted, and coated cow or sheep intestine.<sup>6</sup> These strings have the warmest sound, although the material is more prone to breaking and defects. Defects in gut strings cause what is referred to as a “false string.” This is a string that never seems to tune, no matter the effort by the harpist. This is caused by either the string being too old or a by defect in the winding in the string that causes the string to produce the unpleasant overtones.<sup>7</sup> The longest and lowest sounding strings are made of copper wire wound around a layer of silk threads surrounding a steel core.<sup>8</sup> These strings sound much like a plucked double bass, although the length requires the performer to apply more pressure to get a loud enough tone.

It is not uncommon for a string to break during a performance. For this reason, harpists must keep replacement strings with the harp at all times. Strings are subject to breakage due to changes in weather, altitude, humidity, excessive use, and wear.<sup>9</sup> Once restrung, it takes several days for the string and the strings around it to hold its pitch.

### The Pedal System

There are seven pedals at the base of the harp, each assigned to one note name (see Fig. 3). Sébastien Erard’s double-action pedal system features three positions: upper position, first notch, and second notch, which allow the player navigate between flat, natural, and sharp for each group of notes of one note name (i.e. all C strings, all D

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<sup>6</sup> Karen Gottlieb, “The Thing About Strings: The Lyon and Healy/Salvi Harp Technicians Guild London Meeting and Visit to the Bow Brand String Factory,” *American Harp Journal* (Summer 2013): 32.

<sup>7</sup> Jane Weidensaul, *Scientific Tuning* (New York: Willow Hall Press, 1979), 7.

<sup>8</sup> Gottlieb, 33.

<sup>9</sup> Ibid.



strings, etc.). Pedals are connected to rods that go through the column of the harp and connect to a lever-driven mechanism that engages discs on the neck of the harp (see Fig. 4).

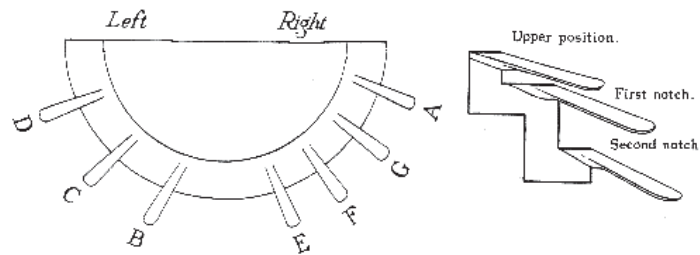


FIGURE 3. Illustration of the pedal mechanism at the base of the harp and pedal positions.<sup>10</sup>

The pedal movement pivots disks along the neck of the harp whose mechanical fingers pinch off or release a mathematically calculated length of the string so that it sounds a semitone higher or lower (see Fig. 4).<sup>11</sup> For example, when the D pedal is in upper position, the string is at its longest length so all the D strings are D flats. When the same pedal is moved into the first notch, all the D strings are raised a semitone to D natural. One more move to the second notch and all the D strings are now D sharps.

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<sup>10</sup> Joyce Rice, "Composing for the Harp," *Harp Spectrum*, accessed 20 January 2015, [http://www.harpspectrum.org/harpworks/composing\\_for\\_harp/composing\\_for\\_harp.shtml](http://www.harpspectrum.org/harpworks/composing_for_harp/composing_for_harp.shtml).

<sup>11</sup> Roslyn Rensch, *Harps and Harpists* (Bloomington: Indiana University Press, 1989), 182.

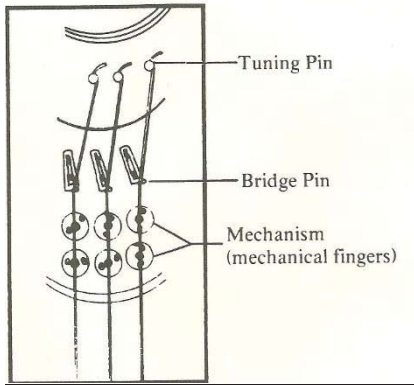


FIGURE 4. Illustration of the disk mechanism at the neck of the harp.<sup>12</sup>

### Pedal Diagrams

Harpists use a graphic representation of the pedals called a pedal diagram to mark the position of each pedal at a specific point in the music. Each small dash represent a pedal (See Fig. 5). Above the horizontal line is a flat note, on the line is natural, and below the line is sharp. These diagrams serve as practice and memory reference points. If the composer does not provide these in the music, the player may add these at his/her discretion.



FIGURE 5. C major pedal diagram.

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<sup>12</sup> Inglefield and Neil, 2.

The above pedal diagram from left to right reads D natural, C natural, B natural, E natural, F natural, G natural, and A natural: comprising the notes that make up the C major scale.

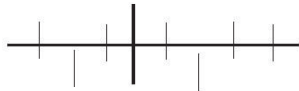


FIGURE 6. D major pedal diagram.

The pedal diagram in figure 6 from left to right reads: D natural, C sharp, B natural, E natural, sharp, G natural, and A natural: comprising the notes that make up the D major scale.



FIGURE 7. D flat major pedal diagram.

The above pedal diagram from left to right reads: D flat, C natural, B flat, E flat, F natural, G natural, and A flat: comprising the notes that make up the D flat major scale.

It is important to consider the pedal system; although it is equally important that the composer does not get intimidated by the perceived difficulty of pedaling and bypass chromaticism or more complex harmonies completely. The next chapter will introduce the reader to three composers: Carlos Salzedo, Henriette Renié, and Maurice Ravel, who not only took these aspects of the instrument into consideration, but used its unique qualities to serve their compositions despite their differing backgrounds.

## CHAPTER 2

### SALZÉDO, RENIÉ, AND RAVEL

Composers Carlos Salzedo, Henriette Renié, and Maurice Ravel each made a name for themselves as first-rate composers for the concert grand double-action pedal harp. All three thrived in the French Romantic to Impressionistic genres and took advantage of the new capabilities of the instrument to bring aspects of their personal and musical backgrounds to their music.

#### Carlos Salzedo

Salzedo has done for the harp what Bach did for the organ, Paganini for the violin, Chopin, Liszt, and Debussy for the piano, which is to enlarge the technical and expressive potential(s) of their chosen instruments.<sup>13</sup>

Carlos Salzedo; a powerhouse of showmanship, technique, and pedagogy, is one of the most revered harpists and composers of the twentieth century. He is responsible for several pedagogical studies for harpists and composers alike, as well as for expanding the harp's timbral possibilities. One of the greatest influences on Salzedo was Debussy. This is apparent in *Method for the Harp*, a book containing a list of notational symbols for new effects cultivated by Salzedo. In depth descriptions of each effect are also included for the performer and composer. This book also includes a set of five etudes, *Five Poetical Studies for Harp Alone*, which make use of these new effects. Like

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<sup>13</sup> Theodore W. Libbey, "Carlos Salzedo: A Centennial Perspective," *American Harp Journal* 10, no. 1 (Summer 1985): 3.

Debussy's *Preludes*, each "étude" focuses on specific techniques or effects while breaking away from the harmonic monotony of typical études.

As a performer, he was praised for his stage presence, power, and command over the harp.<sup>14</sup> Salzedo also used his notational prowess and vast knowledge of the instrument to contribute several transcriptions and arrangements of music for the harp including *Debussy's Children's Corner Suite*, which will be discussed in the following chapters.

### Henriette Renié

In a profession dominated by men at the time, Henriette Renié held her own as a virtuoso harpist and composer. Winner of the Premier Prix in 1887 at age eleven and contributor of some of the most virtuosic and idiomatically written pieces in harp repertoire, Renié was a force to be reckoned with.<sup>15</sup> She faced judgment because of her gender as a performer and composer, as well her status as a devout Roman Catholic in a time of religious defiance.<sup>16</sup> She established her name as a pioneer in harp technique, composition, and pedagogy alongside the likes of harp masters, Carlos Salzedo and Marcel Grandjany. Her method book, *Complete Method for Harp*, is used all over the world. She possessed a deep compassion and willingness to adapt her teaching to best fit each student's needs.<sup>17</sup> This might have been influenced by her complicated relationship

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<sup>14</sup> Wenonah Milton Govea, *Nineteenth and Twentieth-Century Harpists: A Biocritical Sourcebook* (Westport, CT: Greenwood, 1995), 256.

<sup>15</sup> Françoise des Varennes, *Henriette Renié Living Harp*, 2<sup>nd</sup> ed., trans. Sophie Clavel et al. (Bloomington, IN: Music Works-Harp Editions, 1990), 37.

<sup>16</sup> Govea, 229.

<sup>17</sup> *Ibid.*, 237.

with teacher and harp legend, Alphonse Hasselmans, who did not support his student as an up and coming teacher and peer when she was gaining recognition and serious students.<sup>18</sup> Her legacy as a teacher, composer, and performer lives on through her influence on her notable students including Marcel Grandjany, Susann McDonald, Odette de Montesquiou, and Mildred Dilling.<sup>19</sup>

### Maurice Ravel

Unlike the two previously discussed composers, French pianist and composer, Maurice Ravel, was not a harpist himself.<sup>20</sup> Despite this disadvantage, Ravel was successful in composing his only harp feature piece, *Introduction et Allegro*, which is considered one of the greatest showpieces for harp. In his masterpiece, Ravel demonstrates a level of comprehension of the instrument that can only be explained through his association with Carlos Salzedo. Salzedo premiered Ravel's *Introduction et Allegro* in 1928 under Ravel's direction and played a large role in Ravel's composition for harp.<sup>21</sup>

The next chapter will identify fundamental considerations of the instrument that composers should account for when writing for harp, and provide specific examples from

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<sup>18</sup> Barbara L. Kelly, "Ravel, Maurice," *Grove Music Online*, Oxford University Press, accessed 20 January 2015, <http://www.oxfordmusiconline.com.mcc1.library.csulb.edu/subscriber/article/grove/music/5214>.

<sup>19</sup> Jaymee Janelle Haefner, "Virtuoso, Composer, and Teacher: Henriette Renié's Compositions and Transcriptions for Harp in Perspective" (DMA diss., Indiana University, 2007).

<sup>20</sup> Kelly.

<sup>21</sup> Rose, 80.

works of Salzedo, Renié, and Ravel in which they employed these discussed considerations to their advantage.



## CHAPTER 3

### FUNDAMENTAL CONSIDERATIONS OF THE INSTRUMENT

One of the most common misconceptions of the harp is that it is just like a piano.<sup>22</sup> Although harp and piano both read the grand staff, fundamental differences between the harp and any other instrument include playing position, sound production, muffling, fingering, and its role in a chamber or orchestral setting.

#### Playing Position

Concert grand harps can weigh over a hundred pounds, so it is important not to allow too much weight to rest on the body. Unhealthy playing position can lead to back, shoulder, and hand injuries. The harp is tilted back and balanced between the seated player's knees and right shoulder. Unlike other instruments, it is nearly impossible to play the harp by touch alone.<sup>23</sup> With three possibilities of notes per string and overlapping sonorities, the only reliable reference point is the color of the strings. In addition, the performer must have a mental picture of where his/her pedals are in order to analyze the notes he/she is playing. Harpists are advised against looking at their pedals and must move them into position without looking at their feet. In this way, harp is quite difficult in comparison to piano, where the performer can see and feel all of the notes.

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<sup>22</sup> Rose, ix.

<sup>23</sup> Inglefield and Neil, 7.

### Sound Production

The attack of plucking a harp string can be thought of as a sforzando, the impetus being the loudest point followed by an immediate diminution of sound. An immediate rate of decay as soon as the strings are plucked should be taken into consideration by the composer.<sup>24</sup> For this reason, it is difficult to play single lines in a musical fashion like that of a singer or bowed string player who can sustain or increase volume of a note to phrase into the next. Harpists can only attempt to achieve an effect close to this through special attention to finger pressure of melodic lines and the accompaniment figures that fall between them.

### Muffling

When it comes to muffling, the harp is the opposite of a piano. Once strings are plucked, the sound will continue to ring until the strings stop vibrating or the harpist places his or her hands on the strings. It is common practice for harpists to observe rests as a sign to dampen the strings, although it is helpful to indicate important or note specific muffling.

The composer can specify the performer to dampen the whole range of the harp or indicate specific strings, or groups of strings, to dampen. Muffling is useful in preventing unwanted buzzing when moving pedals, or in allowing specific sonorities to ring.

### Fingering

Unlike pianists, harpists only use four fingers on each hand. The fifth finger is not used because it is too short. Attempting use the fifth finger would cause the player to

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<sup>24</sup> Ibid.

adjust her hand position, creating unhealthy tension. One reason piano music does not translate over well to harp is its use of five-fingered figures.

Carlos Salzedo tackles the obstacle of translating piano music for the harp in his transcription of Debussy's *Children's Corner Suite* for flute, cello, and harp. The first movement, "Dr. Gradus ad Parnassum," features a sixteenth-note right hand pattern in the original piano score (See Fig. 8). Salzedo adapts this figure to be easier read and better performed by harpists by splitting the figure in both hands and changing stem direction (see Fig. 9).



FIGURE 8. First two measures of Debussy's original piano score of "Doctor Gradus ad Parnassum."<sup>25</sup>

Although the two versions do not look much different, Salzedo's transcription of the first two measures is significantly easier to read and play for harpists. The change of direction of the stems instructs the performer to play the notes with the stems up with the right hand and the notes with the stems down with the left hand. It is indeed possible to play the figure with one hand on the harp, however attempting to play the figure with

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<sup>25</sup>Claude Debussy, *Coin des Enfants* (Paris: A. Durand & Fils, 1908), 1.

only one hand would put the performer at risk for unnecessary buzzing and would be very difficult to play at the tempo Debussy had in mind. By giving two of the notes of the figure to the left hand, Salzedo increases the performer's accuracy and speed and helps to keep the resonance similar to a piano with the sustaining pedal pressed down.

*Children's Corner Suite*  
I. *Doctor Gradus ad Parnassum*

Claude Debussy  
*transcribed for flute, 'cello & harp by*  
Carlos Salzedo

flute

'cello

harp

Modérément animé ♩ = 144 (or 132)

Modérément animé ♩ = 144  
égal et sans sécheresse (dryness)

*p*

FIGURE 9. Salzedo's transcription of the first two measures of Debussy's "Doctor Gradus ad Parnassum."<sup>26</sup>

### Orchestral/Ensemble Role

It has become common practice for orchestral harpists to interpret and re-write the parts given to them on the first day of rehearsal with a group in an attempt to play what the composer had in mind. It can be incredibly discouraging to a young harpist, new to

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<sup>26</sup> Claude Debussy, *Children's Corner Suite*, trans. Carlos Salzedo (Salzedo Centennial Fund, 1990), 1.

playing in orchestra, to have to sight-read an unplayable or awkward part when other instrumentalists are reading single lines with ease.

It is important for composers to consider the context in which the harp is playing. Because there is usually only one or two harpists in an ensemble and its dynamic range is not as large as other orchestral instruments, it is easy for the harp to get overpowered by the sound of an ensemble. For this reason, the harp is often given a large number of measures of rest and only plays in lighter orchestrated sections. As an ensemble player, the harp is most useful as an accompaniment, or percussive player. Effects such as glissandos, material in the higher register, and unison lines with other members of the group project well within a large group. If material in the middle to low register needs most to be heard, consider thinning out the orchestration so it will be audible.

In order for the harp to be heard in a larger orchestration, it is important to use techniques and effects exclusive to the instrument. These will be discussed in the next chapter.

## CHAPTER 4

### CHARACERISTIC EFFECTS

This chapter discusses some of the effects exclusive to the harp as demonstrated in specific musical examples in compositions by Salzedo, Renié, and Ravel.

#### Enharmonics

An enharmonic is a different spelling, or synonym, of the same note. In harp, this is used in correspondence with the string used. Therefore, a written C sharp and a written D flat are the same sounding pitch, but are played on two different strings. Composers can use the enharmonic spelling of chords to avoid unnecessary pedal movement by substituting note synonyms for the desired notes that are more easily available. The harp's ability to produce enharmonic equivalents is also integral in the harp's ability to produce fast repeated notes, one-note trills, and glissandos.

#### “Correct” Spelling vs. Enharmonic Spelling

There are two ways of notating enharmonics; both of which are equally respected. Some composers find it more important to stay true to the formal analytical spelling of the music and leave it to the harpist to figure out the enharmonic spelling for themselves. Another school of thought is to write every note according to what strings are to be played on the harp. This technique often mixes sharps and flats, but is easier to read.

### Correct Spelling

Renié, like most of her peers, belongs to the school of harp composition which notate the “correct” spelling of chords according to their analytical harmonic function. The last chord of the cadenza is a D7 chord, leading to the next section of the piece which is in G minor. The glissando preceding this chord also outlines this chord (see Fig. 14). There is a D natural, C sharp, B sharp, E flat, F natural, G flat, and A natural already set from this gliss. Instead of moving pedals to play the “correct” strings, one can achieve the same chord by enharmonically spelling the D7 chord without moving any pedals (see Fig. 10). In order to remind herself in future practice sessions, the harpist circles the notes that will be substituted for their enharmonic equivalent (G flat for F sharp and B sharp for C natural). Renié writes the “correct spelling” of the chord so the harpist will see the harmonic function of the chord; however, she assumes that the harpist will be able to interpret her writing and use the proper enharmonic spelling for execution of the chord.



FIGURE 10. The correct spelling and enharmonic spelling of the chord at the end of the cadenza in *Pièce Symphonique*.<sup>27</sup>

<sup>27</sup> Henriette Renié, *Pièce Symphonique* (Paris: Alphonse Leduc and C<sup>ie</sup>, 2008), 6.

### Enharmonic Spelling

Unlike Renié's works, Salzedó's compositions are much more textural and stray away from classical harmonic rules; therefore Salzedó has no need to outline the exact harmonic function of the chords. Particularly in his *Five Poetic Studies for Harp Alone*, Salzedó uses enharmonic spelling to illustrate his use of similar shapes, figures, and string patterns while pushing the boundaries of harmony.

Salzedó chooses to write the notes on the strings they are played, allowing flats and sharps to coexist in one measure (see Fig 11). His study on arpeggios allows the harpist to refine her precision and execution of wide spanning arpeggios by repeating the string pattern while keeping harmonic interest by altering the pitches of those strings with the corresponding pedals. In addition to harmonic variety, Salzedó uses dynamics to shape the phrases in an otherwise plain etude.

The image shows a musical score for two measures, 11 and 12, from Carlos Salzedó's "Mirage." The score is written for harp, with a treble clef and a key signature of one sharp (F#). The music consists of two staves: a treble staff and a bass staff. Both staves feature arpeggiated figures. The bass staff includes the instruction "cresc." (crescendo) in two places. Below the bass staff, there are two sets of chord spellings. The first set, corresponding to measure 11, lists: Mi#, Do#, E#, Cb. The second set, corresponding to measure 12, lists: Lab, Ré#, Ab, D#. The notes in the score are written with their respective accidentals, demonstrating enharmonic spelling.

FIGURE 11. Measures 11 and 12 from Salzedó's "Mirage."<sup>28</sup>

<sup>28</sup> Carlos Salzedó, "Mirage," *Five Poetic Studies for Harp Alone* in *Modern Study of the Harp* (New York: G. Schirmer, Inc. 1921), 34.



The nature of the instrument does not allow harpists to rely on her kinesthetic memory the way that pianists do. Since the same four-note-chord shape on the same strings can produce several different chords, it is easy to be playing the right string, with the wrong pedal setting or vice versa.

#### One-Note Trills and Fast Repeated Notes

Because of the nature of the mechanism, it is impossible to simultaneously play a D flat on the D string in one octave and a D natural on the D string on another octave. However, with the use of enharmonics, it is possible to substitute the D flat by moving the C pedal into the second notch, producing a C sharp, which is enharmonically equivalent to D flat while keeping the D pedal in the first notch at D natural. The use of enharmonics by way of moving pedals can be highly efficient when used correctly.

If the note cannot be doubled enharmonically, tremolo is produced by immediately replacing and plucking on the same string which causes buzzing and does not produce the desired effect.<sup>29</sup> Notes that cannot be enharmonically reproduced on another string include D natural, G natural, and A natural.<sup>30</sup> Single note tremolos are executed by a piano; however, one must keep in mind that replacing a finger on a string recently played dampens that note and creates a buzz if the nail comes in contact with a vibrating string.

One-Note Trills. Salzedo's third etude, named "Inquietude," is dedicated to the study of grace-notes and trills. In this etude, Salzedo's breadth of knowledge of the technical intricacies of the harp as well as texture and tone possibilities is particularly evident. In measure 23 (Fig. 12), Salzedo uses enharmonic equivalents to double D flat

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<sup>29</sup> Inglefield and Neil, 12.

<sup>30</sup> Tournier, 47.

with C sharp and G flat with F sharp to achieve what sounds like a single note trill on D flat and G flat. This technique allows the player to play a single sonority rapidly at a loud dynamic without prematurely dampening the sound.

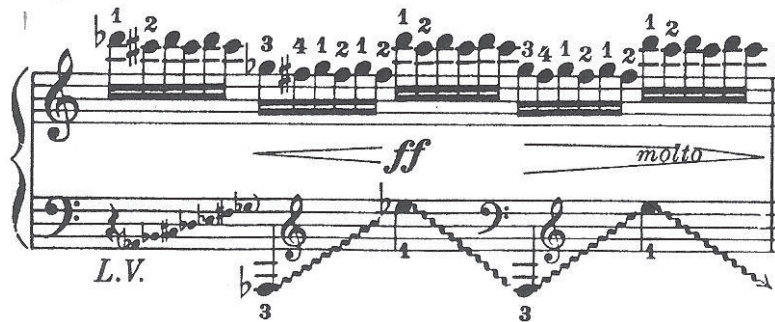


FIGURE 12. Measure 23 from Salzedo's "Inquietude."<sup>31</sup>

Fast Repeated Notes. Renié utilizes the harp's ability to double notes enharmonically in order to execute fast repeated notes; achieving the effect of an F pedal point in these measures (see Fig. 13).

Because of the immediate decay of the sound of a note when a string is plucked, Renié chooses to double the F with an E sharp in thirty-second notes in the right hand while reinforcing the pedal with octave Fs in the left. Although no E sharps are indicated in the score, it is expected that the harpist will interpret the passage while learning the piece. To indicate enharmonic equivalence in scores, a harpist circles said note. This

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<sup>31</sup>Carlos Salzedo, *Five Poetic Studies for Harp Alone* in *Modern Study of the Harp* (New York: G. Schirmer, Inc., 1921), 42.

produces four articulations of F natural within the span of one quarter note. This effect is highly effective and minimizes the chance of unwanted buzzing or premature muffling of the strings.

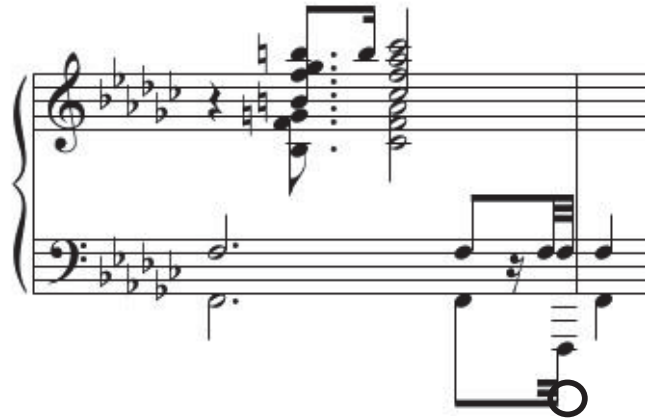


FIGURE 13. Fast repeated notes outlining an F pedal in page 3, *Pièce Symphonique*<sup>32</sup>

### Glissandi

Since its introduction to the orchestral genre by Franz Liszt, the glissando has become the single most recognizable sound produced on the harp.<sup>33</sup> They are heard frequently in film, T.V., and orchestral works to convey a magical, angelic, mysterious, or joyous mood. On the harp, a glissando is achieved by sliding the finger across the specified range of strings. Although scale glissandi are used, enharmonics are what make

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<sup>32</sup> Renié, 2.

<sup>33</sup> Tournier, 77.

glissandos sound so “magical.” By doubling desired chord tones the glissando can outline a chord or mode instead of just the key signature. This innovation of the mechanism of the harp allows this ancient instrument to keep up with contemporary music.

There are several ways glissandi are notated in music. Some composers choose to write out all the notes of the glissando (see Fig. 14). In this case, the glissando is written out in thirty-second notes, providing all of the sonorities for the gliss.



FIGURE 14. Glissando as notated in Renié’s cadenza in *Pièce Symphonique*.<sup>34</sup>

The above excerpt from Renié’s *Pièce Symphonique*, illustrates some of Renié’s characteristics as a composer. Unlike Grandjany and Salzedo, she had considerably smaller hands, but that did not prevent her from writing large figures. In this cadenza, she covers the entirety of over three octaves in one seamless gesture. Renié utilizes enharmonics with the pedals to outline the desired sonorities. The “correct spelling” is:

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<sup>34</sup> Renié, 6.

D natural, C sharp, C natural, B sharp, E flat, F natural, F sharp, A natural, which translates into its enharmonic equivalent: D natural, C sharp, B sharp, E flat, F flat, G flat and A natural.

Salzédó notates his glissandi in measure 23 in “Inquietude,” by drawing the direction and range of each with a wavy line (see Fig. 15).

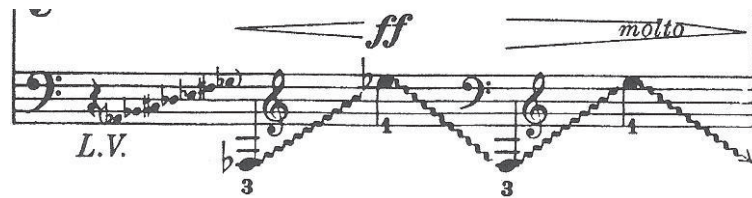


FIGURE 15. Left hand gliss in m.23 from Salzédó’s “Inquietude.”<sup>35</sup>

The quarter notes dictate the desired range and duration of the gliss. Instead of writing out all the notes, Salzédó provides the accidentals needed in parenthesis in the beat of rest preceding the glissando. This technique is useful when writing several consecutive glissandi.

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<sup>35</sup> Salzédó, 42.

## Harmonics

Harmonics are produced on the harp by pressing the bone of the hand (for left hand harmonics) or the knuckle of the second finger (for the right hand) in the middle of the string and plucking the string with the thumb of that hand, producing the note an octave above the string played. This effect is commonly compared to bell sounds. The harmonics are notated with a small circle above the note on the top staff, and below the note in bottom staff. It is possible to produce up to three harmonics in the left hand at once as long as the chord shape spans no larger than a fifth; whereas, the right hand can only produce one at a time. It is common practice for harmonics to be written where they are played on the harp, rather than where they sound, unless notated otherwise.

## As the Melodic Voice

Instead of writing the melody where it sounds, Ravel assigns the melody to be played with harmonics in the left hand (see Fig 16). By using harmonics in the lower register of the harp while the rhythmic activity is in the upper register, the melody notes doubled in harmonics ring through the phrase. The longer value notes of the melody are given shape and direction by way of the sixteenth note figures that follow them. This is particularly effective in the chamber setting such as this one. By placing the melody of a phrase in harmonics, the melody is given its own voice or timbre. This makes the harp's melody more distinguishable from the rest of the group without requiring the harpist to overplay.



FIGURE 16. Melodic harmonics in Ravel's *Introduction et Allegro*.<sup>36</sup>

### In Close Chord Voicings

SalzÉdo uses harmonics to achieve the effect of consecutive closely voiced cluster chords while playing in two different registers of the harp. Instead of writing the chords as five adjacent strings (see Fig 18), he gives the left hand two notes in harmonics, leaving the right hand with a triad (see Fig 17). This technique produces a more resonant sound and reduces the risk of unwanted buzzing or premature dampening.

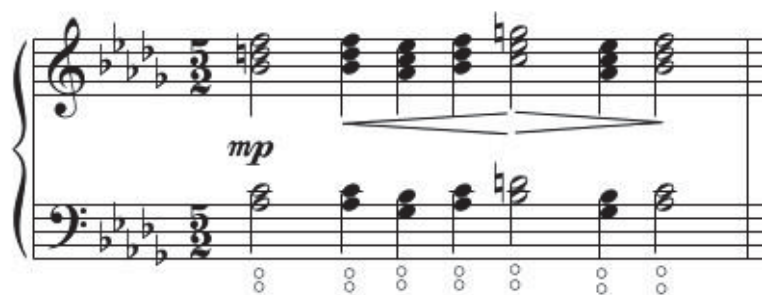


FIGURE 17. Cluster chords voiced with harmonics in m.17 of SalzÉdo's "Communion."<sup>37</sup>

<sup>36</sup> Maurice Ravel, *Introduction et Allegro* (Paris: Durand, 1906), 4.

<sup>37</sup> SalzÉdo, 51.



FIGURE 18. Sounding pitches of m. 17 “Communion.”<sup>38</sup>

### Rolled Chords With More Than Eight Notes

Although it is a general rule that chords of more than eight notes should not be written for harp, there is an exception to this rule. Chords of more than eight notes can be played if the chord is rolled, and if the tempo allows. In order to play these chords, harpists “roll” or quickly “arpeggiate” the notes of the chord from bottom to top; crossing hands as necessary. Unless otherwise indicated, the top note of each chord must land on the beat the chord is notated.

Salzedo dedicates an entire etude to the execution of consecutive large chords, using chords as large as fifteen notes (see Fig. 19). In order to achieve the desired effect, these chords must be practiced enough so they become a fluid gesture, accenting the melody at the top. Known for being extremely specific in his markings, Salzedo specifies the direction of the rolled chord with an arrow at the top of the wavy line at the left of the chord and uses stem direction and labels to indicate which hand plays which notes. He

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<sup>38</sup> Ibid.



puts an emphasis on the direction of the chords because of the importance of the prominence of the melody at the top of each chord.

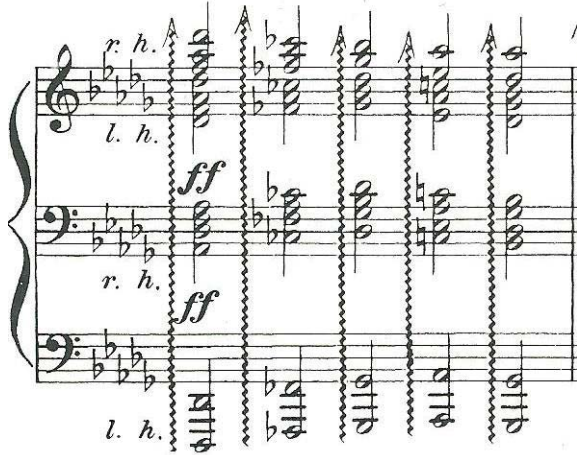


FIGURE 19. Large rolled chords in m. 9 of "Communion."<sup>39</sup>

Renié also uses consecutive chords of more than eight notes in the last page of *Pièce Symphonique* (see Fig. 20). Like Salzedo, Renié uses stem direction to specify the notes played by each hand, but assumes the harpist knows to roll the chord from bottom to top, as this is the default interpretation of this notation.

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<sup>39</sup> Salzedo, 50.

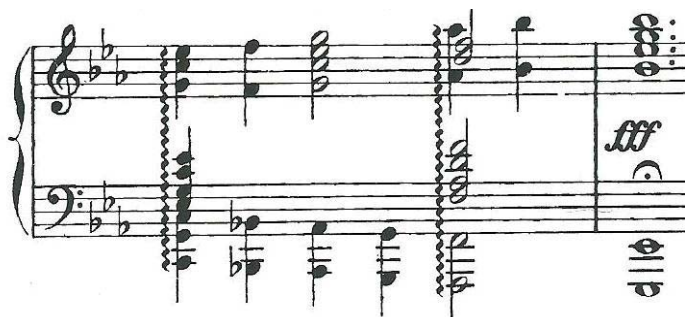


FIGURE 20. Large rolled chords in *Pièce Symphonique*.<sup>40</sup>

Because of the loud dynamic of the chords and the resonant nature of the instrument, these large chords ring through the phrase and cause other strings of those sonorities to ring through sympathetic vibrations. Covering the span of over four octaves in one chord, Renié utilizes the harp's large range to create a grand and powerful tone to end her piece.

The harp's ability to execute effects such as glissandos, harmonics, and large rolled chords that are exclusive to the instrument solidifies it as an integral member in orchestral, chamber, and solo settings. Other instruments, real and electronic, can only attempt to imitate these effects that are unique to the live harp.

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<sup>40</sup> Renié, 12.

## CHAPTER 5

### CONCLUSION

The foremost reason why there is so little “well written” harp music is the fact that there are substantially fewer people who know how to play harp than almost any other instrument. The best way to understand an instrument is to learn how to play it, and harps are not as readily available as other instruments because of price, size, and exclusivity. If one is serious about writing for the harp, one must go beyond reading, listening and watching. Learn more about the instrument, its history, teachers, and repertoire. Consider taking harp lessons. The American Harp Society has a directory of teachers in every area and chapters in most major cities.<sup>41</sup>

By approaching harp as a unique instrument with attributes that do not limit it, but expand the possibilities of texture and timbre in any setting, a composer has the freedom to explore further these characteristics and take the harp with him or her in all directions of musical expression. No longer shall the harp be written for as a piano turned on its end. As demonstrated in examples by revered harp-composers Salzedo, Renié, and Ravel, the complexities of the harp’s mechanism, performance practice, and harmonic capabilities do not have to be considered as an obstacle to tackle, but should be utilized in order to best serve the music.

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<sup>41</sup> The directory is available on <http://www.harpsociety.org/Resources/TeachersDirectory.asp>

There very well may be further progress on the instrument in the future. It would only make sense that the instrument would continue to be “improved upon” as music changes. Today, the harp has made its way into electronic, pop, and continues to be a staple player in film and TV scores. With advancements in technology and more composers writing for the instrument, the possibilities for the harp are endless.

## APPENDICES

APPENDIX A  
LIST OF USEFUL REFERENCE BOOKS  
FOR HARP COMPOSITION AND NOTATION

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- Inglefield, Ruth and Lou Anne Neil. *Writing for the Pedal Harp: a Standardized Manuel for Composers and Harpists*. Berkeley: The University of California Press, 1985.
- Lawrence, Lucile and Carlos Salzedo. *The Art of Modulating*. New York: G. Schirmer, 1950.
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APPENDIX B

HARP COMPOSING: “RULES OF THUMB”



## HARP COMPOSING: “RULES OF THUMB”

- The harp is not a piano
- Each hand can only play 4 notes at a time
- Avoid large skips in fast passages
- Single note trills can only be successfully executed through the use of enharmonics. (ex. B natural and C flat trill)
- A note of two different chromaticisms cannot be executed on the harp unless through enharmonics. (ex. C natural in one octave and C sharp in another octave cannot be played at the same time).
- Fast repeated notes and tremolos cannot be enharmonically produced on D natural, G natural, or A natural because there are no enharmonic equivalents possible on other strings.
- Pedals on opposite sides of the harp can be moved simultaneously.
- When notating glissandos, indicate the accidentals needed for the gliss or for the chord it is outlining, or the gliss will be made up of the notes of the key signature.
- Writing in the lower range of the harp can produce a “muddy” sound. Try to space out voicings.
- When writing passages of large chords in each hand, use similar shapes/inversions for the ease of the harpist.

APPENDIX C  
RECITAL PROGRAM

## PROGRAM

Pièce Symphonique.....Henriette Renié (1875-1956)  
Introduction et Allegro..... Maurice Ravel (1875-1937)

## INTERMISSION

Five Poetical Studies for Harp Alone.....Carlos Salzedo (1885-1961)

“(Mirage)”

“(Flight)”

“(Inquietude)”

“(Idyllic Poem)”

Children’s Corner Suite.....Claude Debussy (1862-1918),  
arr. by Carlos Salzedo (1885-1961)

- |      |                         |     |                      |
|------|-------------------------|-----|----------------------|
| I.   | Dr. Gradus ad Parnassum | V.  | The Little Shepherd  |
| II.  | Jimbo’s Lullaby         | VI. | Golliwog’s Cake Walk |
| III. | Serenade of the Doll    |     |                      |
| IV.  | The Snow is Dancing     |     |                      |

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