

# Writing for the harp

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An exploration of the mechanism of the harp, effective writing,  
and extended techniques for this unique instrument

By Dr. Angela Schwarzkopf

# Overview

## Brief history of the harp

- How the modern harp mechanism works.

## The basics of writing for harp

- Utilizing unique features.
- Common pitfalls.

## Extended harp techniques

- Survey and demonstration of various techniques.
- Performance of examples.

## Q&A

# A brief history of the harp

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# Early Harps and Artistic Depictions

- Early artistic representations were found in a variety of places.
  - In tombs
  - On graves
  - By altars
- Types of representations found include:
  - Wall paintings
  - Seals
  - Plaques
  - Vases
  - Tablets

Harps were  
everywhere!

- Mesopotamia
- Egypt
- Israel
- China
- Japan
- India
- Greece

# Different shapes of early harps

- Arched
- Angular
- Barrel
- Boat
- Bow
- Crescent
- Ladle
- Spade
- Spoon-shaped

# Early harps were played lots of ways!

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- Seated
- Standing
- Kneeling
- Held vertically
- Held horizontally
- Played with hands
- Played with plectrum

## Harp in Europe in the Middle Ages

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Roslyn Rensch, *Harp and Harpists*, pg.45. (Pub. Indiana University Press).

- These harps were primarily composed of three parts: soundbox, string arm, and column
- Harp representations are found in Psalters and manuscripts



## Seventeenth and Eighteenth-Century Harps

- Harps with one set of strings
- Harps with two sets of strings
- Harps with three sets of strings
- Hook harps
- Single action pedal harps



*Harpe à Crochets: Anonyme, France (?). XVIIIème siècle. Picture used with courtesy of the Museo dell'Arpa Victor Salvi. Trois siècles de harpes.*

Photograph by Ruggiero Filannion (France: Western Central, 2004; print; 9).

## Some important changes:

- The structure of the harp became stronger
- More strings (up to 43!)
- Red Cs and Black Fs



*Harpe à Simple Mouvement: Naderman, Paris, 1770. Picture used with courtesy of the Museo dell'Arpa Victor Salvi. Trois siècles de harpes.*

Photograph by Ruggiero Filannion (France: Western Central, 2004; print; 27).

## Nineteenth Century

- Solutions to increasingly chromatic music
  - Double action pedal harp
  - Chromatic harp



*Harpe Chromatique: Pleyel, Paris, vers 1915. Picture used with courtesy of the Museo dell'Arpa Victor Salvi. Trois siècles de harpes. Photograph by Ruggiero Filannion (France: Western Central, 2004; print; 77).*

Some important  
changes for the double  
action pedal harp:

- The harp can play in all major and minor keys
- A larger pedal box resulted in the overall size of the harp increasing
- More consistent tone throughout the instrument
- Enharmonic notes



*Harpe à Double Mouvement: Erard et cie., Paris, 1879. Picture used with courtesy of the Museo dell'Arpa Victor Salvi. Trois siècles de harpes.*

Photograph by Ruggiero Filannion (France: Western Central, 2004; print; 73).

## Twentieth Century

- Both the double action pedal harp and chromatic harp were in use
- Some pedal harps had up to 48 strings
- Harps were being made in North America that were more sturdy and had the extended soundboard
- Salzedo devised a new method for colouring harp strings (green Cs, purple Fs, and all other notes red!)



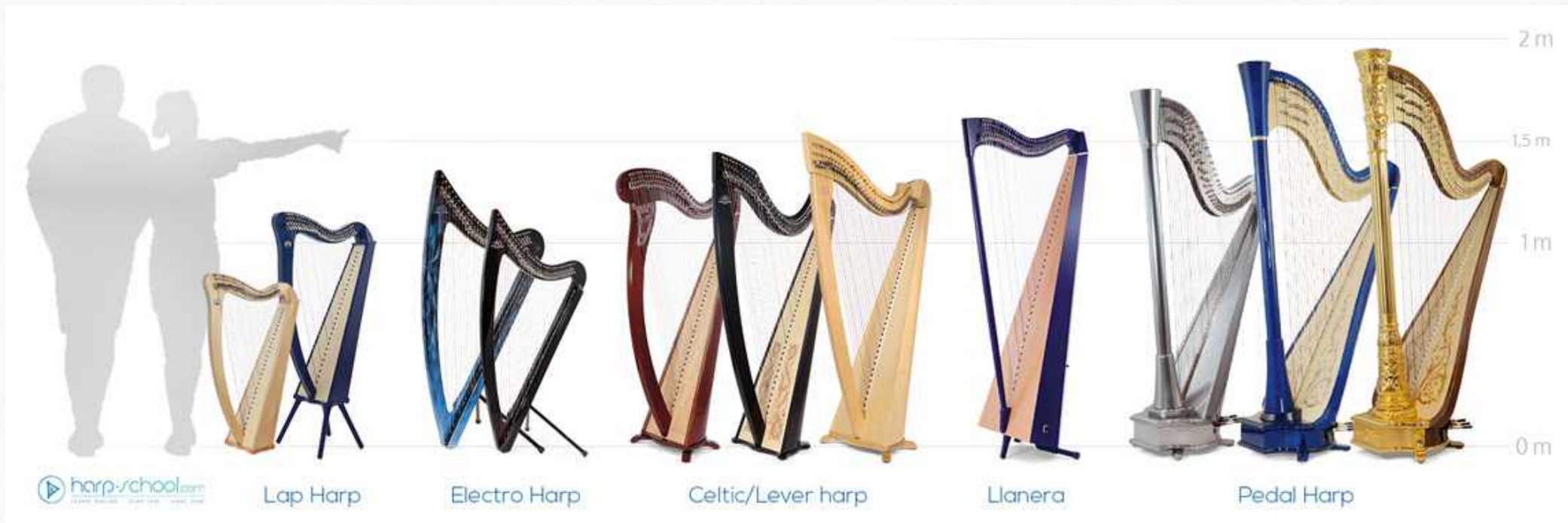
*Harpe à Double Mouvement: Lyon & Healy, Chicago?, 1928. Picture used with courtesy of the Museo dell'Arpa Victor Salvi. Trois siècles de harpes.*

Photograph by Ruggiero Filannion (France: Western Central, 2004; print; 91).

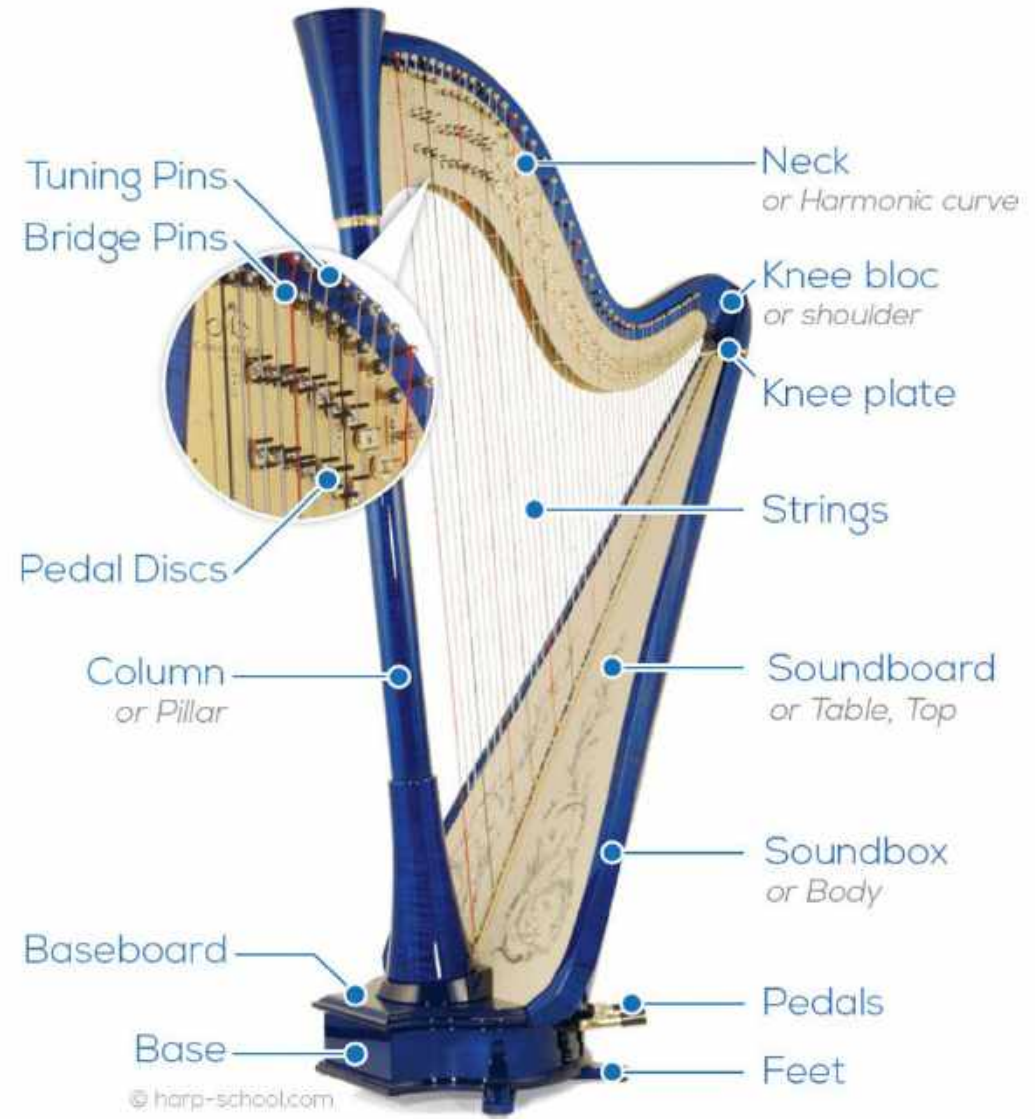
# Harp 101

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# Size range of harps

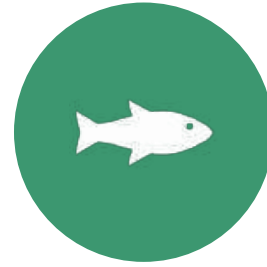


# Parts of the harp





# Effectively writing for the harp



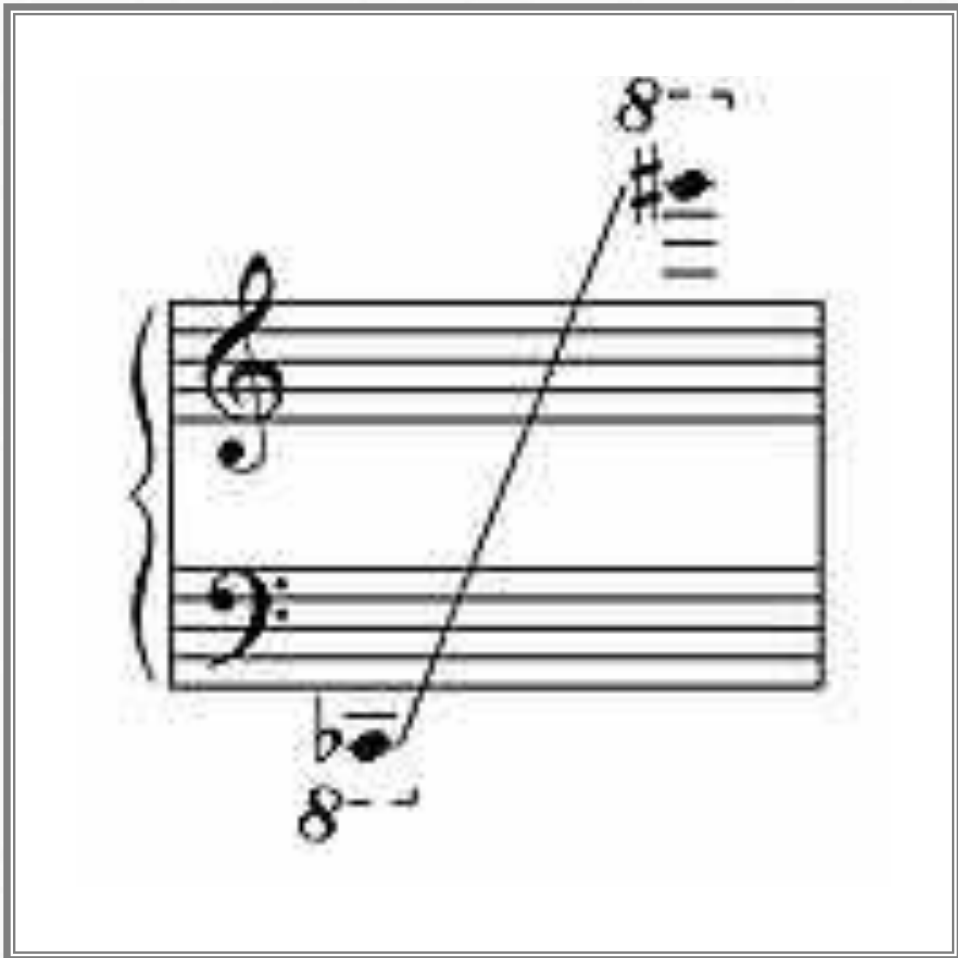
HARP  
BASICS



UNIQUE  
FEATURES



COMMON  
PITFALLS



[www.orchestrationonline.com](http://www.orchestrationonline.com)

## Range of the harp

- Bottom two strings cannot change pitch within a composition.
- The right hand plays the upper range of the harp; however, the left hand can also play the upper range.
- The left hand plays the lower range. The right hand cannot reach all of the low strings.

# Registers of the harp

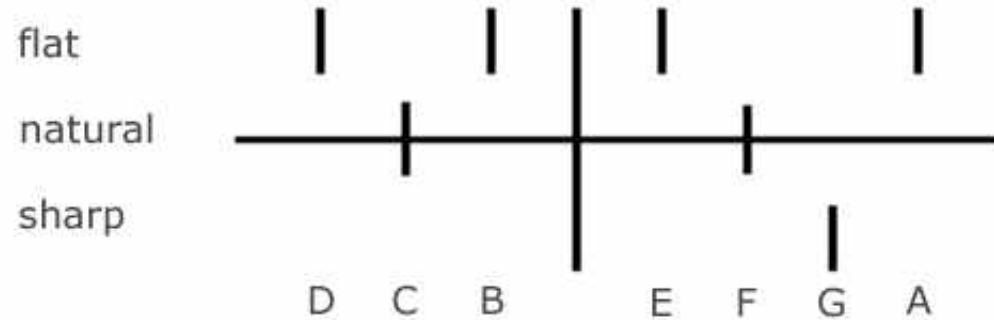
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The upper register is generally brighter and has good clarity. It does not resonate for a long time.

The middle register of the harp is the richest with the most warm and resonant sound.

The lower range is the most resonant. It can be unclear and fast articulation is often not possible as buzzing can occur.

# Pedals



- The left foot moves D, C, and B.
- The right foot moves E, F, G, and A.
- Both feet can move at the same time.
- The left foot can also reach the E pedal.

[www.15secondharp.com](http://www.15secondharp.com)

# How to mark pedals

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- Some harpists prefer to put the pedal changes in themselves.
- Some prefer the composer to put them in.
- If you are putting them in, mark them under the staff.
- If there are two pedals, the right foot pedal goes overtop of the left foot pedal.
- Use a pedal diagram at the top of the piece.

# Fingers and hands

- Harpists use their thumb, pointer finger, middle finger, and ring finger.
- They do not use their little finger.
- Up to four notes in each hand at any one time (unless it is a rolled chord).
- Consider the span of the chord or the stretch between fingers.

# Chords



Salzedo had a rule that all chords of more than two notes should be rolled.



Harpists tend to play most chords rolled, even when not marked.



If you have a preference between chords being rolled or played as a solid chord, indicate it in the score.



If you have a large chord of more than eight notes, the harpist will have to roll the chord.

# Muffles and rests

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- The harp is a very resonant instrument.
- The harp can be muffled in different ranges and on single notes.
- The harpist will sometimes let notes ring through rests if there is not enough time to muffle them.
- It is helpful to make it clear in the score if you would like rests adhered to with a muffle or if the harp can ring through rests marked.



# Enharmonic notes

- The harp can double all pitches except D, G, and A.
- The harp can not produce a C, C-sharp, and D all at the same time. It can produce a C and a C-sharp at the same time (by using the D-flat string).

# Harmonics

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The harp can produce several harmonics on one string.

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The clearest harmonics on the string is the one produced in the middle.

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The right hand can play one harmonic at a time.

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The left hand can play up to three harmonics at a time (although one or two sounds best).

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If there is multiple harmonics in the left hand, consider the span of them.

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Harmonics sound best on gut or nylon strings (not the wire strings).

# Range of harmonics

unstable

impractical

[www.orchestraonline.com](http://www.orchestraonline.com)

# Where to write harmonics



Salzedo wrote harmonics where they sound so the harpist must play them an octave lower.



In pretty much all other music, harmonics are written where they are played producing a sound an octave higher.



It is always helpful to make a note at the start of the composition indicating your intention.

# Glissandi

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- A unique feature of the double action pedal harp.
- Can create different tonalities and chords.
- Various different types of glissandi.
- Notate the tonality of the glissando with the first octave of notes if different from the key signature.

# Large note heads

The image shows a musical score for piano in 3/8 time, featuring a treble and bass clef. The music is written in a key with one flat (B-flat). The score consists of two staves. The upper staff (treble clef) begins with a dynamic marking of *mf* and contains a series of notes that rise steadily in pitch. The lower staff (bass clef) contains a series of notes that also rise in pitch, with a glissando marking *gliss. m.g.* at the beginning. The notes in both staves are drawn with significantly larger heads than standard notation. A large, sweeping slur is drawn under the notes in the lower staff, extending across the entire passage.

Marcel Tournier, *Thème et variations*, mm.39. (Pub. Leduc).

# Metric numbers

The image shows a musical score for piano, consisting of two staves. The key signature has two flats (B-flat and E-flat). The first staff begins with a fortissimo (*ff*) dynamic marking. The score features two measures of glissando passages. In the first measure, the right hand has a glissando marked 'glissando 14' and the left hand has a glissando marked '7'. A dashed line with the number '8' indicates the duration of the glissando. The second measure is similar, with the right hand marked 'gliss. 22' and the left hand marked '7'. The glissando markings are represented by a series of slanted lines with notes, and the duration is indicated by a dashed line with a number above it.

Marcel Tournier, *Jazz-Band*, op.33, mm.11-12. (Pub. Lemoine).

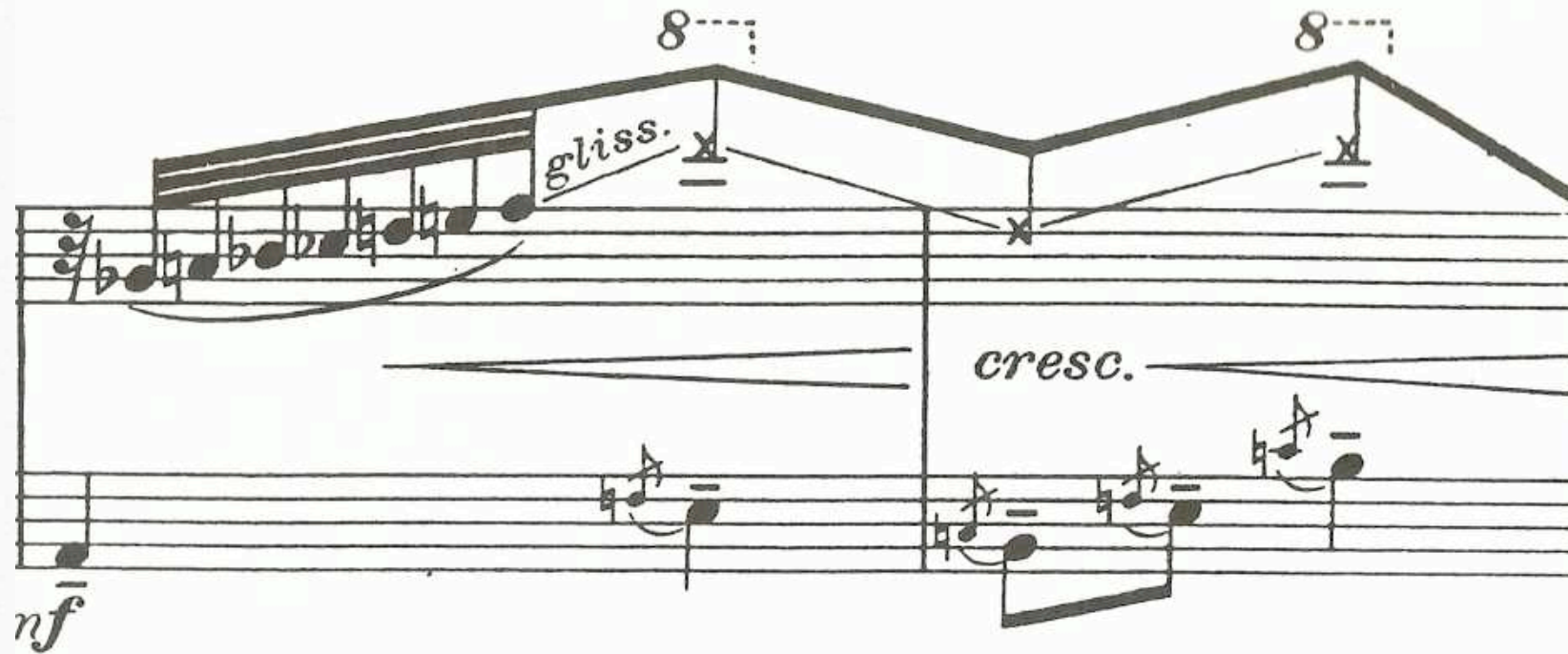
# Note heads

The image displays a musical score for two staves. The upper staff features a melodic line with several ornaments: a 'gliss.' (glissando) over a note, a 'gliss.' over a triplet of notes, and another 'gliss.' over a note. The notes are marked with '3 (Mi $\flat$ )<sub>3</sub>' and '(Mi $\flat$ )'. The lower staff contains a bass line with a 'cresc.' (crescendo) marking and notes marked with 'bb' and '3'. The score is set in a key with two flats (B-flat and E-flat) and a 4/4 time signature. The notes are marked with '4)' and '(Ré $\flat$ )'.

Marcel Tournier, *Pastels du vieux japon*, op.47, mm.17-18. (Pub. Lemoine).



# Used at meeting points



Marcel Tournier, *Image X*, *La volière magique*, op.39, mm.53-54. (Pub. Lemoine).

# To impose a limit (without a specific end note)

The image displays a musical score for two staves. The upper staff features a melodic line with a glissando, indicated by a dashed line and the word "gliss." above it. The French instruction "cédez très peu" is written above the staff. The lower staff contains a few notes, with a dynamic marking "<sf>" below it and a "(b)" above it. The word "moins p" is written to the left of the lower staff.

Marcel Tournier, *Image X*, *La volière magique*, op.39, mm.96. (Pub. Lemoine).

# Glissando-piccolo

*Allegro*

*gliss.*

*gliss.*

*gliss.*

(1)

(a)

Ei h  
B h

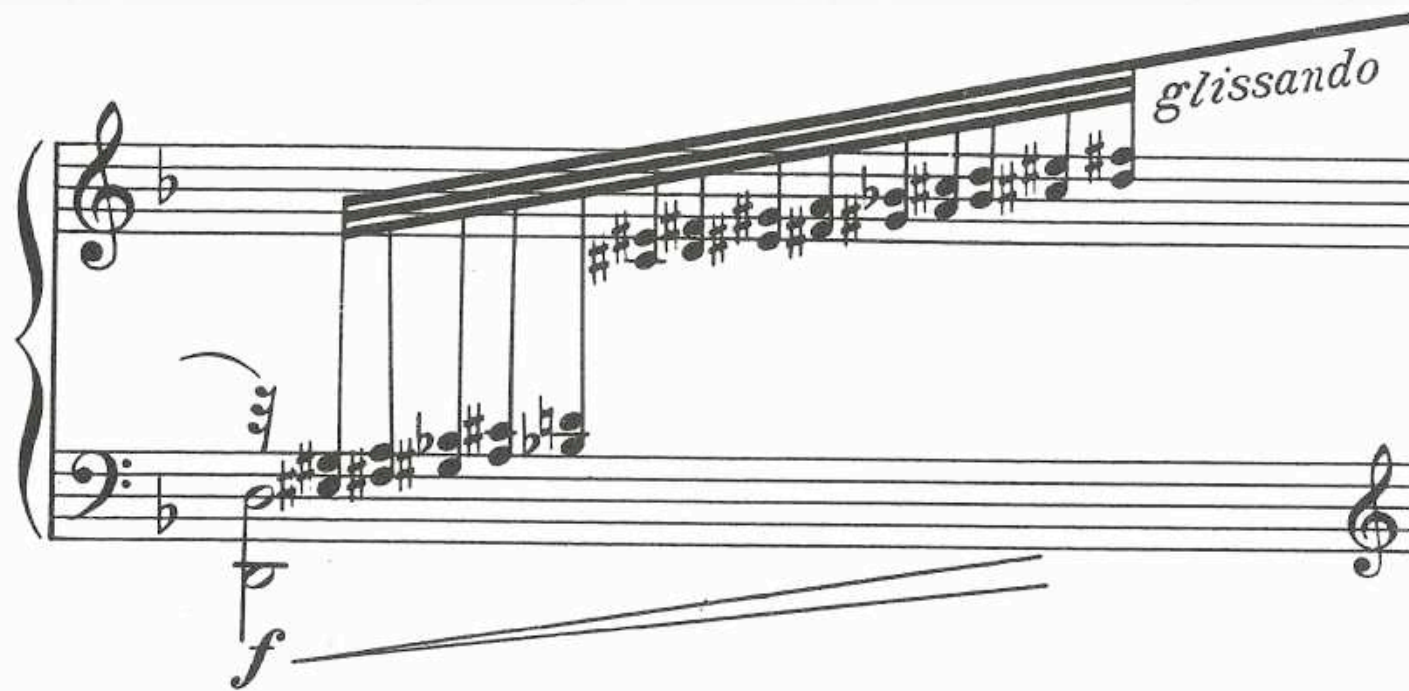
Marcel Tournier, *The Harpe*, pg. 82. (Pub. Lemoine).

# Glissando coming out of a chord (and p.d.l.t)

The image shows a musical score snippet in 2/4 time. The top staff is in the bass clef and contains a glissando. A vertical dashed line with the number '8' above it indicates the starting point of the glissando. The glissando is marked with 'gliss.' and 'p.d.l.t.' (pedal down, left hand). The tempo marking 'rit. molto' is placed above the glissando. A dynamic marking 'p' (piano) is shown below the glissando. The bottom staff shows a bass clef with a few notes and a fermata.

Marcel Tournier, *Jazz-Band*, op.33, mm.65. (Pub. Lemoine).

# Double glissando



Marcel Tournier, *Thème et variations*, mm.216. (Pub. Leduc).

# Mixed arpeggio

The image shows a musical score for a piece titled "Mixed arpeggio". The score is written on two staves. The top staff is in treble clef, and the bottom staff is in bass clef. The key signature is one sharp (F#), and the time signature is 3/8. The tempo marking is "Tempo I°". The music features a prominent arpeggiated texture. The top staff begins with a series of notes, followed by a long, sweeping line that arches over the bottom staff. The bottom staff starts with a forte dynamic marking (*f*) and a series of notes, followed by a section marked "gliss." (glissando). The score concludes with a final note on the top staff.

Marcel Tournier, *Fête* from *Suite*, op.34, mm.75-76. (Pub. Lemoine).

# Staccato

- The harp will not create a true staccato sound as the piano can.
- Can be expressed with articulation.
- Can be used to indicate a detachment of the fingers.
- Can be played with the right hand with the left hand immediately muffling the string.
- Can be produced by one hand if the notes are moving by step.

# Près de la table

- Played close to the soundboard.
- Creates a guitar like sound.
- Can be indicated by:
  - *Près de la table*
  - PDLT
  - Small wavy line
  - Large wavy line



# Common pitfalls

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Writing for five fingers

Lowest two strings needing multiple pitches

Multiple pedals at one time

Too many harmonics at one time

Needing more hands or feet than possible

Writing too fast for clarity or effect

Reach of the hands or arms

Staccatos too fast or in an unclear range

Repeated notes too fast or in a buzzy range

Misuse of enharmonics

# Extended harp techniques

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# Notating extended harp techniques in your compositions

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- Use a legend at the start of the piece with an explanation of what effect you would like.
- If space allows in the score, include an explanation at the start of the score or the first time the symbol is used (especially if you are using a new symbol).

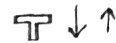
# Techniques listed in a legend

Harp I

with the metal rod, slide up and down from the indicated mark on the string.

If done fast on a large portion of string, the effect sounds like a slow chromatic glissando.

If done quick on a short portion of string, the effect sounds like a tremolo.



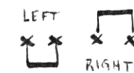
with the metal rod, slide down from the top (near the disc) to the bottom (near the soundboard) of the string. The effect sounds like an ascendant chromatic glissando.



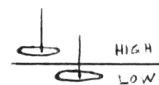
with the metal rod, slide up from the bottom (near the soundboard) to the top (near the disc) of the string. The effect sounds like a descendant chromatic glissando.



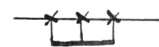
knock on soundboard (always written between the two staves).



finger cymbals (percussion staff), played with the metal rod.

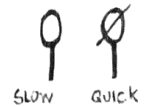


ankle bells (percussion staff).



Harp 2

with the rubber ball mallet, slide down from the top (near the disc) to the bottom (near the soundboard) of the string. Natural harmonics will appear depending on the speed motion (slowly or quickly).



with the rubber ball mallet, hit a specific string.



with the rubber ball mallet, hit the soundboard and let it rebound.

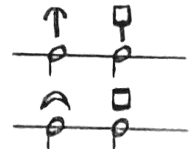


knock on soundboard (always written between the two staves).



cymbal (percussion staff)

slide quickly on the cymbal or hit it with the wooden head of the mallet.



slide quickly with the nails on the cymbal

hit the cymbal with the hand

SLIDE HIT

Caroline Lizotte, *Raga*. (les éditions Calyane).

# Explanation at the start of the score

## Winter Still

Sharlene Wallace

*pp* (*pulse gently with the thumb*) *f*

XLPHN

(Xylophonic Sound: LH 4321 finger tips pressed against the base of the strings ABDE touching the sound board, thus producing a muted sound from the RH. The LH remains muting until m3-5 when the fingers gradually lift away from the strings one at a time (1324) as indicated. This allows these notes to now ring through.)

Sharlene Wallace, *Winter Still*, mm.1-3. (Pub. Wallace).

# Explanation within the score

The image shows a musical score for piano, consisting of three staves: a treble clef staff, a grand staff (treble and bass clefs), and a bass clef staff. The score is divided into three measures. The first measure is marked with a fermata and the instruction "vibrate". The second measure is marked with "whistle" and features a series of notes with arrows indicating up and down motion. The third measure is marked with "circular motion" and features a series of notes with a circular motion symbol. The key signature is Gb, indicated by a flat sign and the letter "Gb" below the bass staff.

*vibrate*

5 (8)

*whistle*

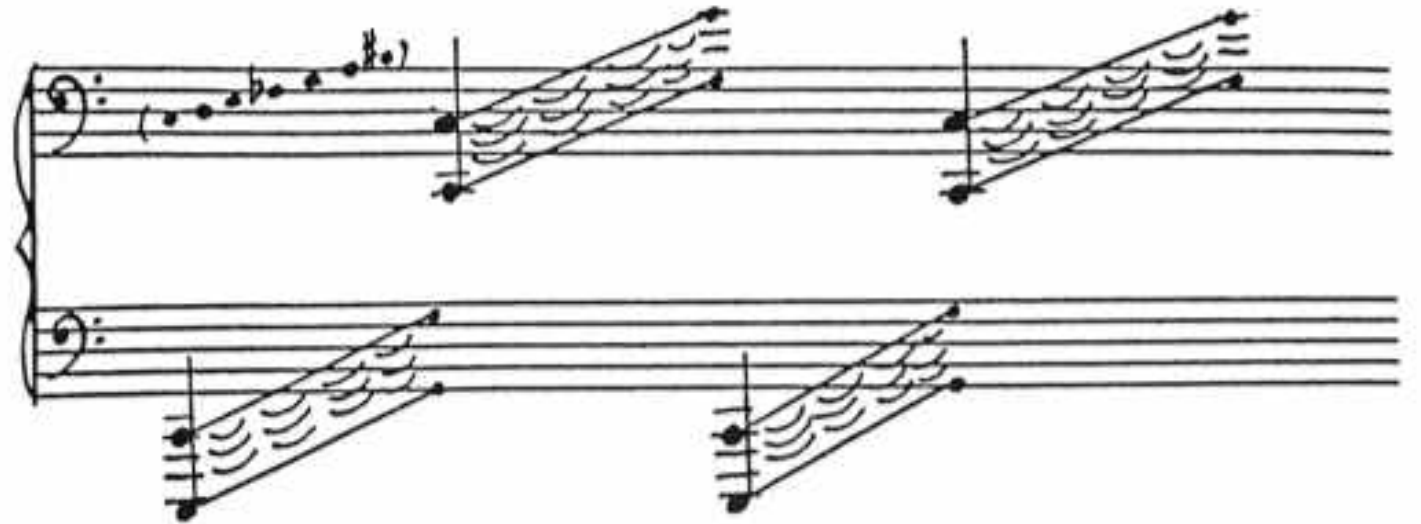
*circular motion*

**Gb**

Monica Pearce, *attach*, mm.5-10. (Pub. Pearce).

## Rolling Surf

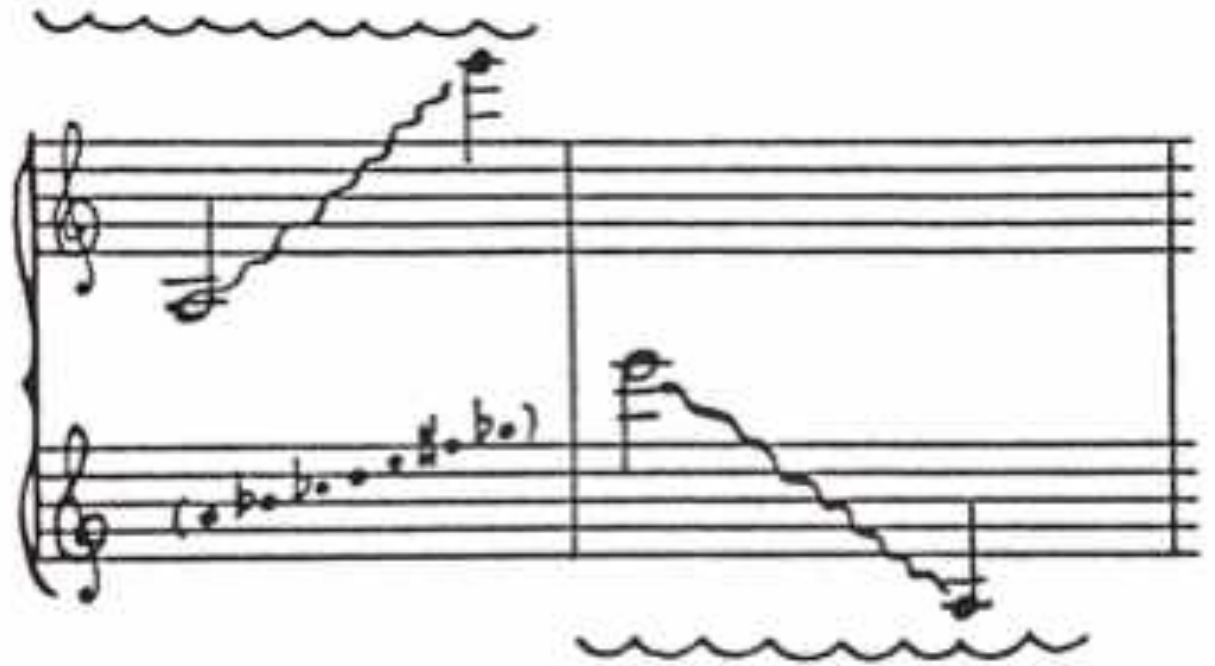
- Usually in the lower register of the harp.
- Generally played slower.
- Produces a gentle blurred and bubbly sound.



Dewey Owens, *Carlos Salzedo: From Aeolian To Thunder*, pg 97.  
(Pub. Lyon & Healy).

## Oboic Flux

- Played similar to a glissando but closer to the soundboard.
- Creates more of a wooden sound.

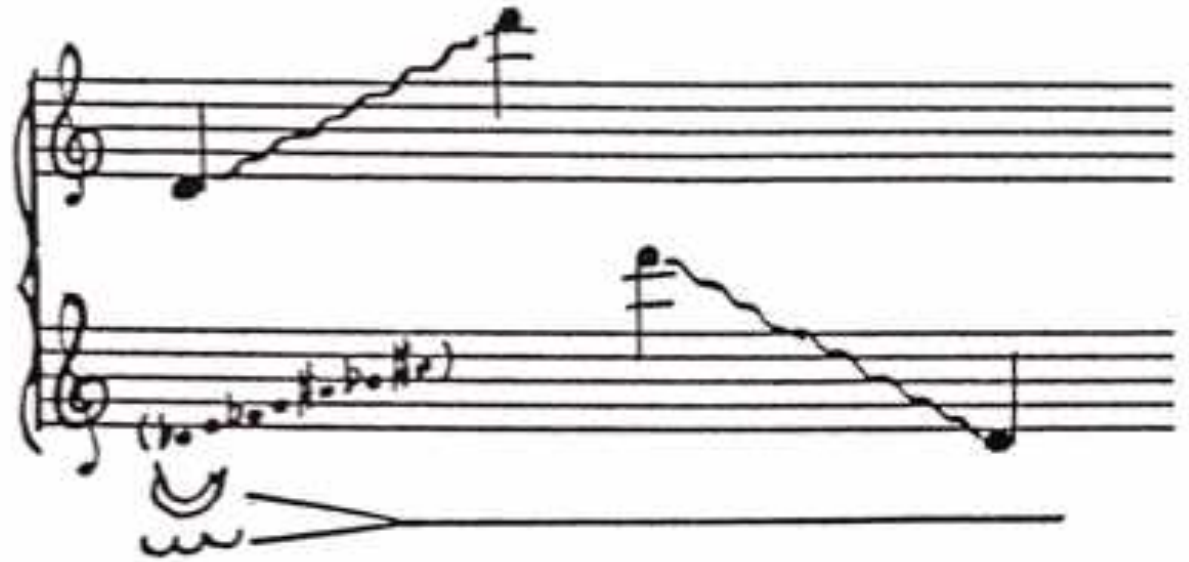


Dewey Owens, *Carlos Salzedo: From Aeolian To Thunder*, pg 97.  
(Pub. Lyon & Healy).



## Xyloflux

- Played close to the soundboard and with the nail.
- Creates a wooden sound but with a click.



Dewey Owens, *Carlos Salzedo: From Aeolian To Thunder*, pg 98.  
(Pub. Lyon & Healy).

## Falling-hail

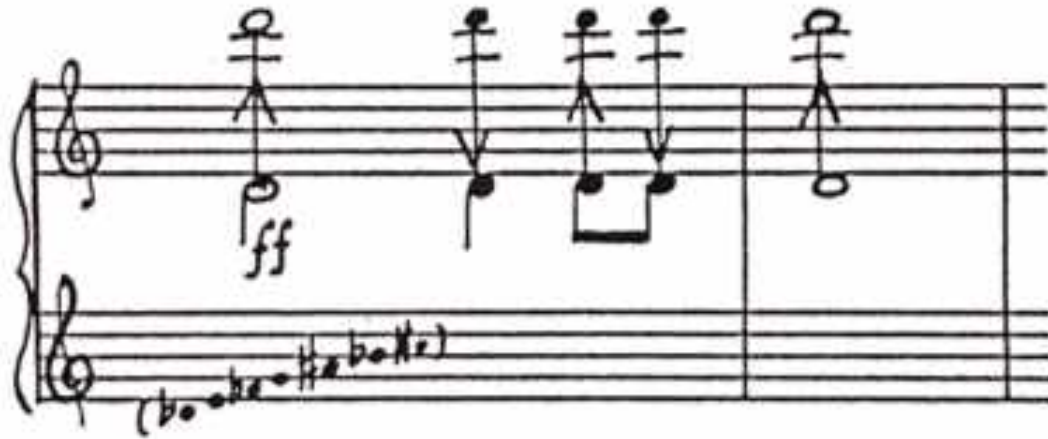
- Played with the back of the nails.
- Creates a click type sound.
- Not a loud effect.



Dewey Owens, *Carlos Salzedo: From Aeolian To Thunder*, pg 97.  
(Pub. Lyon & Healy).

# Gushing Chord

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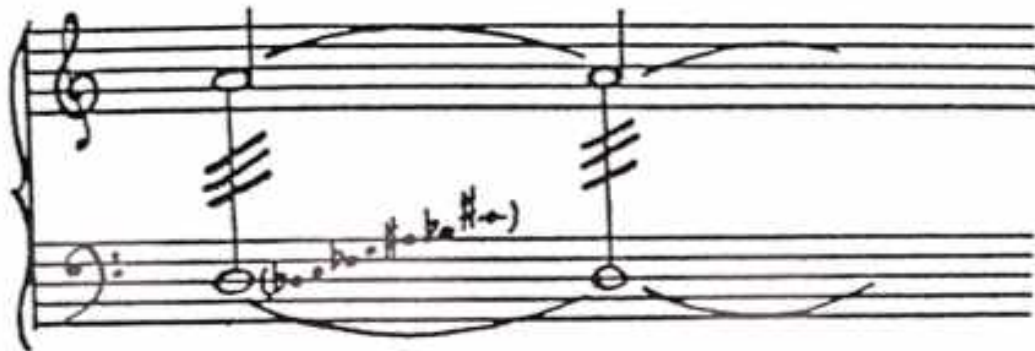


Dewey Owens, *Carlos Salzedo: From Aeolian To Thunder*, pg 98.  
(Pub. Lyon & Healy).

- A quick upward glissandi.
- Often very rhythmic.
- Can go upward or downward.

# Aeolian Tremolo

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Dewey Owens, *Carlos Salzedo: From Aeolian To Thunder*, pg 99.  
(Pub. Lyon & Healy).

- Flat hand rubs strings.
- Creates a rustling sound.
- Very soft sounding effect.

## Aeolian Chord

- A short, rhythmic glissandi.
- Play over a specific set of pitches.
- Can be played ascending or descending.



Dewey Owens, *Carlos Salzedo: From Aeolian To Thunder*, pg 99.  
(Pub. Lyon & Healy).



## Thunder Effect

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- Created on the lowest wire strings.
- Produced by rapidly sliding a finger over the strings.
- The wire strings rattle against each other.

Dewey Owens, *Carlos Salzedo: From Aeolian To Thunder*, pg 99.  
(Pub. Lyon & Healy).

## Whistling Sounds

- Played with the palm of the hand on the wire strings.
- Upward or downward gesture.
- Can be fast or slow.
- Soft effect.



Dewey Owens, *Carlos Salzedo: From Aeolian To Thunder*, pg. 100.  
(Pub. Lyon & Healy).

# Pedal Slide



Dewey Owens, *Carlos Salzedo: From Aeolian To Thunder*, pg 100.  
(Pub. Lyon & Healy).

- Created by moving the pedal after a string is plucked.
- The sound is gentle on the higher strings.
- The tone is more aggressive on the wire strings.
- Can be done fast or slow (depending on the range).
- Can be played rhythmically.



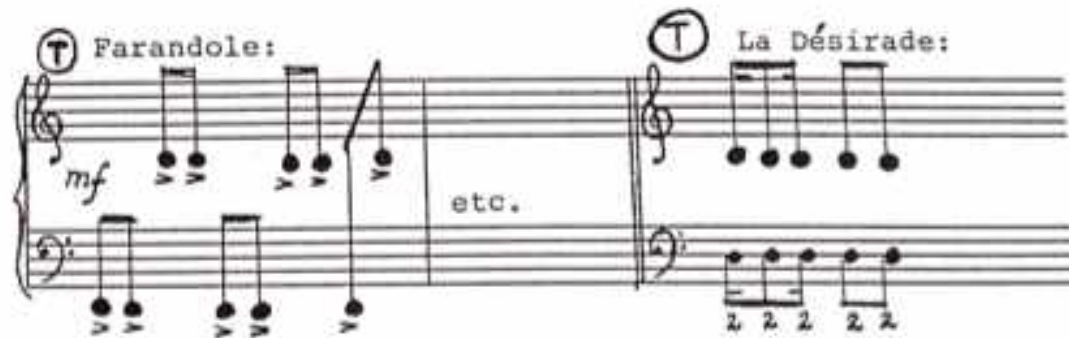
# Plectric Sounds



Dewey Owens, *Carlos Salzedo: From Aeolian To Thunder*, pg 102.  
(Pub. Lyon & Healy).

- Created by plucking with the fingernails.
- Played close to the soundboard.
- Creates a metallic sound.

# Timpanic Sounds

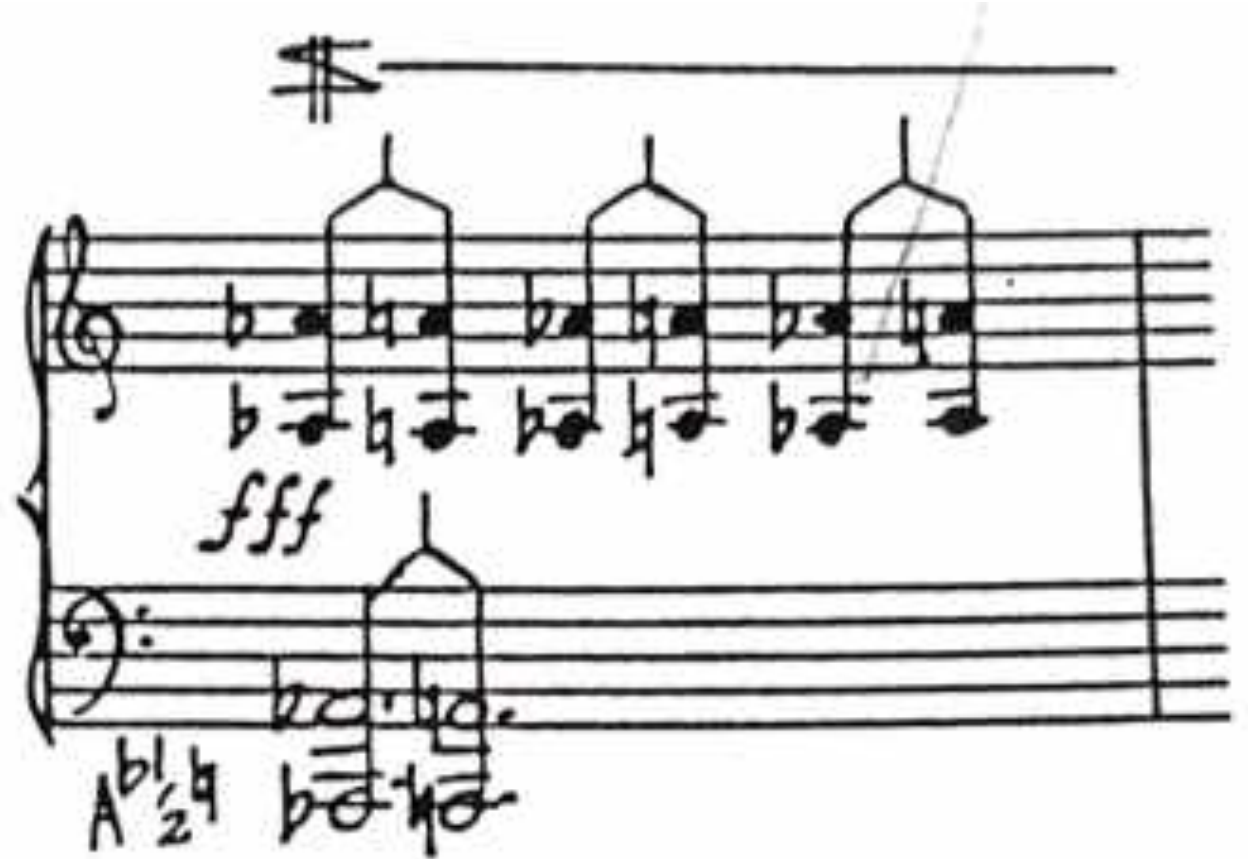


Dewey Owens, *Carlos Salzedo: From Aeolian To Thunder*, pg 100.  
(Pub. Lyon & Healy).

- Tapping of the soundboard with the fingers or hand. (This is different from knocking on the soundboard).
- Creates a feeling of castanets.
- Can be quite soft dynamically.

## Metallic Sounds

- Achieved by holding the pedal between two notches.
- Creates a loud brassy metal like sound.



Dewey Owens, *Carlos Salzedo: From Aeolian To Thunder*, pg 101.  
(Pub. Lyon & Healy).

# Xylophonic Sounds

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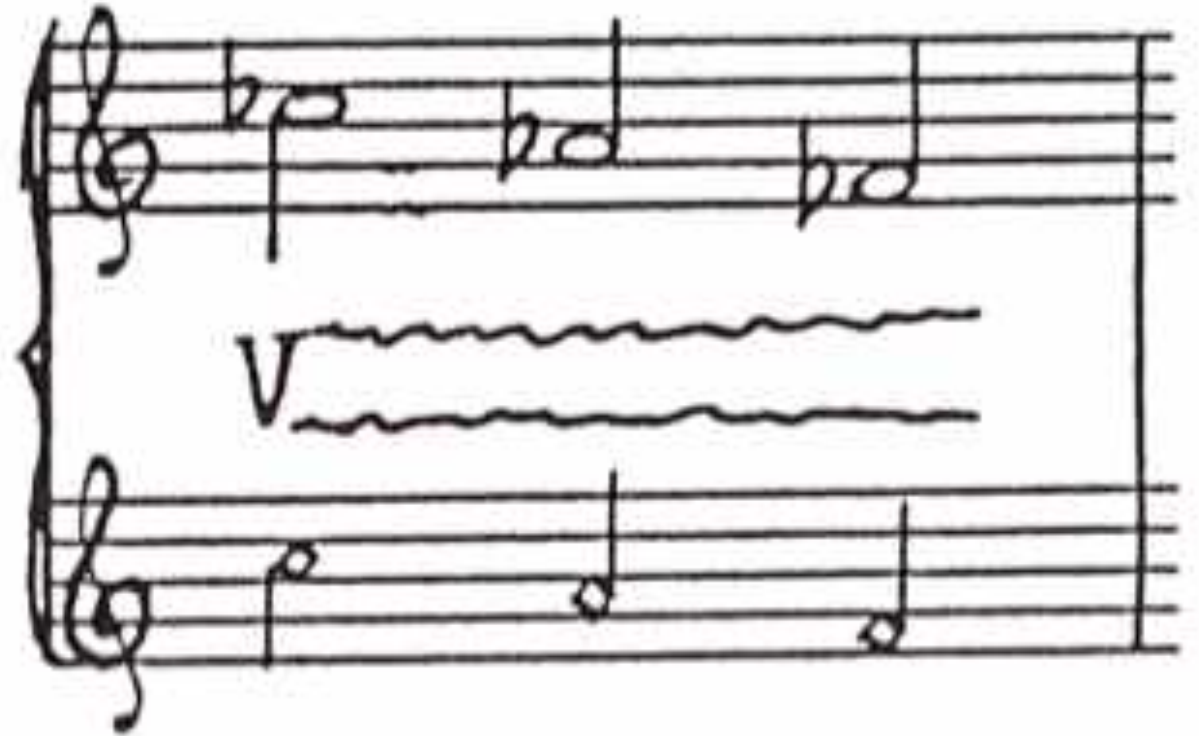


- The tips of the fingers in one hand touch the strings, while the others pluck the note.
- The sound produced is wooden.

Dewey Owens, *Carlos Salzedo: From Aeolian To Thunder*, pg 104.  
(Pub. Lyon & Healy).

## Vibrant Sounds

- The right hand plucks the string.
- The left hand presses the string in-between the disks and the tuning pin.
- This is most effective in the upper register of the harp.



Dewey Owens, *Carlos Salzedo: From Aeolian To Thunder*, pg 103.  
(Pub. Lyon & Healy).

# Miscellaneous



GONG



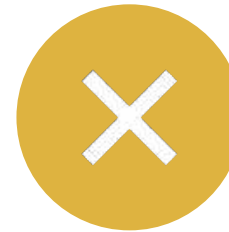
TUNING KEY  
GLISSANDO



PAPER IN THE  
STRINGS



PLUCKING THE  
STRING WITH A  
PICK



USING A  
HONEY DIPPER  
IN THE STRING



USING A  
MALLET ON  
THE STRINGS

# Combination of techniques

57

Scintillation - 17

G# ————— b ————— ♭  
C# ————— b ————— ♭

Carlos Salzedo, *Scintillation*, mm.57-58. (Pub. Salvi).

# The opening of *Raga* by Caroline Lizotte

(les éditions Calyane)

Caroline Lizotte

**HARP 1**  
MARK SUL:  
B4 / Bb3  
A4 / G#3  
TUNE LOW C#  
Db

**HARP 2**  
TUNE LOW C#  
Db

**1** Dououreux

WAIT UNTIL YOU HEAR NATURAL HARMONICS OF HARP 2 BEFORE PLAYING

SIMILE

Ab

TAKE THE TUNING KEY IN YOUR LEFT HAND IN ORDER TO BE ABLE TO PLAY THE BISBIGUANDO WHILE HOLDING THE KEY.

Db B#

**1** Dououreux

HOLDING THE STICK, PRESS THE BALL VERY GENTLY BETWEEN THE TWO STRINGS AND SLIDE DOWN SLOWLY TO PRODUCE NATURAL HARMONICS (o)

(3 SEC.)

B#

Detailed description: The image shows a handwritten musical score for two harps. The top system is for HARP 1, with a treble clef and a key signature of one flat (Bb). It starts with a first-measure rest, followed by a melodic line in the treble and a bass line. The word 'Dououreux' is written above the first measure. Performance instructions include 'WAIT UNTIL YOU HEAR NATURAL HARMONICS OF HARP 2 BEFORE PLAYING' and 'SIMILE'. A tuning key signature change to Ab is indicated. The bottom system is for HARP 2, also with a treble clef and one flat. It begins with a first-measure rest, followed by a melodic line with natural harmonics (circles) and a bass line. The word 'Dououreux' is written above the first measure. A performance instruction describes how to produce natural harmonics. A '(3 SEC.)' marking is present at the end of the first line. A tuning key signature change to B# is indicated.



# Raga...continued

(les éditions Calyane)

The image shows a handwritten musical score for a Raga. It consists of two systems of staves, labeled 1 and 2.

**System 1:** This system contains two staves. The upper staff has a treble clef and contains a whole note chord with a sharp sign. Above it, the instruction "BISBIGLIANDO VERY FAST" is written. The lower staff has a treble clef and contains a series of notes, including a sharp sign. Above this staff, the instruction "SLOW DOWN GRADUALLY" is written. A dynamic marking "ppp" is placed above the first part of the lower staff, and "f" is placed above the second part. A slur covers the notes in the second part of the lower staff.

**System 2:** This system contains two staves. The upper staff has a treble clef and contains a series of notes, including a sharp sign. Above it, the instruction "HIT THE STRING IMMEDIATELY AFTER PLAYING" is written. A dynamic marking "f" is placed above the notes. The lower staff has a bass clef and contains a series of notes, including a sharp sign. A dynamic marking "f" is placed above the notes. A slur covers the notes in the lower staff.

Additional annotations include a circled "1" on the left side of the first system, a circled "2" on the left side of the second system, and a circled "2 sec." above the first note of the second system. A circled "C#" is written below the lower staff of the first system. A circled "Ab" is written above the lower staff of the second system. A circled "A4" is written above the lower staff of the second system. A circled "T" with an upward arrow is written below the lower staff of the first system, with the instruction "START SUL B4 MARK END AT THE TOP OF THE STRING (NEAR THE DISCS)." written below it.

# Opening of *detach* by Monica Pearce

Dreamy, foggy ♩ = 55

*p* ○○○○

whistling,  
circular motion  
+++|+|++

3

3

# *detach...continued*

hit strings (gently)

6

3

3

*mp*

*mf*

*mf*

xyl. ————— *ord.*

5

4

5

3

6

The image shows a musical score for piano and xylophone. The piano part is in the upper staff, starting with a treble clef and a 5/4 time signature. It features a series of vertical strokes (chords) in the first two measures, followed by a change to a 4/4 time signature and then a 6/4 time signature. The xylophone part is in the lower staff, starting with a 6/4 time signature and featuring a series of notes with a slur and a fermata. Handwritten annotations include 'mp' and 'mf' in the piano part, and '5', '4', '5', '3', '6' in the xylophone part. The score is labeled 'hit strings (gently)' and 'xyl. ————— ord.'.

Harpist generally love working with composers.

Take a harp lesson.

Share your sketches.

Work through drafts.

Be open to exploring different options if one effect does not work.

Final  
thoughts...



Questions?

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# Thank you!

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A very big thank you to the Canadian League of Composers for  
having me present today.