

Pipa

- **Pipa**



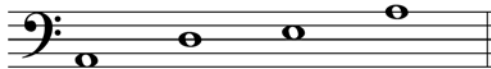
[Picture of Pipa]

Description

A pear shaped lute with 4 strings and 19 to 30 frets, it was introduced into China in the 4th century AD. The Pipa has become a prominent Chinese instrument used for instrumental music as well as accompaniment to a variety of song genres. It has a ringing ('bass-banjo' like) sound which articulates melodies and rhythms wonderfully and is capable of a wide variety of techniques and ornaments.

Tuning

Pipa tuning - A d e a



String # 4 3 2 1

The pipa is tuned, from highest (string #1) to lowest (string #4):
a - e - d - A.

In piano notation these notes correspond to:
A37 - E32 - D30 - A25 (where A37 is the A below middle C).

Scordatura

As with many stringed instruments, scordatura may be possible, but one needs to consult with the musician about it. Use of a capo is not part of the pipa tradition, though one may inquire as to its efficacy.

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Notation

One can utilize western notation or Chinese. If western notation is utilized, many, if not all, Chinese musicians will annotate the music in Chinese notation, since this is their first choice. It may work well for the composer to notate in the western 5 line staff and add the Chinese numbers to it for them. This may be laborious, and it is not necessary for Chinese musicians, who are quite adept at both systems.

In western notation one writes for the Pipa at pitch, utilizing the bass and treble clefs. In Chinese notation one utilizes the French Chev  number system (see entry: *Chinese Notation*).

In traditional pipa notation there are many symbols that are utilized to call for specific techniques. These can be included, or simply described in other ways by the composer. See below in the discussion on technique.

Range

Pipa range - A to d'''



Assuming an instrument with 29 frets, the full range of the Pipa extends from A (an octave and a minor third below middle C) up to d³ (two octaves and a major second above middle C). Thus the full range of the Pipa is almost 3 1/2 octaves. In practice the extreme upper register is used little. (check the reason for the limitation). Below is a fret diagram of the pipa with the note numbers next to the frets.

Strings 3 and 4 are not normally played above a major 10th, or fret number 16 (check). Strings 1 and 2 are played up to 2 octaves and a fourth, or fret number 29 (check).

Positions of play on the Pipa

Positions are very important in writing for the Pipa. (check the exact fret numberings)

(insert chinese character) - is the open or nut position

- I - is the 1st position, from fret 7 to 12
- II - is the 2nd position, from fret 13 to 17
- III - is the 3rd position, from fret 18 to 24
- IV - is the 4th position, from fret 25 up.

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Pipa Fretboard

Open strings

4: A = 5 = Sol

3: d = 1 = Do

2: e = 2 = Re

1: a = 5 = Sol

# 4	# 3	# 2	# 1
5(A ₂₅)	1(D ₃₀)	2(E ₃₂)	5(A ₃₇)
6	2	3	6
		4	
7	3		7
1	4	5	1
2	5	6	2
3	6	7	3
4		1	4
	7		
5	1	2	5
6	2	3	6
		4	
7	3		7
1	4	5	1
2	5	6	2
3	6	7	3
4		1	4
	7		
5	1	2	5
6	2	3	6
		4	
7	3		7
1	4	5	1

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General Considerations

The Pipa is one of the solo instruments of the Chinese instrumentarium. Its plucked sound has a lot of high-[artial overtones, and it cuts through ensemble textures very well. Quick scalar runs, strummed chords, tremolos, muted notes, harmonics, and percussive noises are all idiomatic to the instrument.

The Pipa is played by all the fingers of the right hand. The performer wears plectra on 4 of these fingers (excluding the thumb). The left hand is used to finger the notes at the frets along the neck of the instrument.

Hint for Composing for the Pipa: Tune a guitar to the pipa tuning (5-1-2-5, i.e. sol-do-re-sol). Working with this configuration will approximate what the pipa can do.

Dynamics

The Pipa has excellent dynamic qualities, and can be assumed to play from *pp* to *ff*. Strumming, or playing several strings at once as a springboard to single notes, or as an ostinato for a melody on a higher string, increases dynamic intensity and presence.

Speed of Execution

The pipa is capable of very quick scalar runs. Speed is lessened somewhat when crossing strings or when making leaps, but generally there are few limiting factors. While slurring (hammering off and on) is quite common, it is idiomatic for quick passages to be articulated one stroke to a note.

Techniques

I. Traditional Techniques

Luen ☆ - a five finger roll used to play melodies, it is basically a tremolo for long melodic note durations. It can be executed on 1 string or 2 strings at a time. In Chinese it is called *luen*, [see section on Pinyin - ch], its pronunciation is closer to 'loong'. (ch) The five star symbol is placed above the note to which it applies, and an extended dotted line (.....) indicates that all notes beneath it are to be treated the same way. (see example below).

[There are also four and three star symbols with the extended dotted line. Check to see whether these are 4 and 3 finger melodic rolls for faster lines]

Pan Luen (✚) - a grace roll of 4 fingers, where the roll ends in a longer note, as below:

It can all be on one note, or the 3 preparatory notes can be on one note while the landing note is another, thus:

It seems that this latter instance is the more common or typical. It is called in Chinese *Pan Luen*. (check: could a 4 note grace, ending with a longer fifth note be executed?)

San Ju Luen - a grace roll of three notes, two preparatory and one landing note. Usually used in faster passages.

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Dzai ✱ - A high pitched muted sound effect, created by placing the thumb nail of the left hand (check) against the string and plucking. Sometimes one can do the rolls to sound the effect. It is executed almost exclusively on the 1st string (the other strings do not speak as well).

Slap Stroke (L) - Executed with the thumb. Generally, it will be the thumb on a lower string, especially the 4th string. It creates a fret slap, like a "Bartok" slap pizzicato.

Hammering on and off - There are many combinations of hammering off and on.

1. Hammer on with left hand, after right hand pluck.
2. Hammer off with left hand, after right hand pluck.
3. Combinations of 1 & 2, pluck with right hand, and hammer on and off, or off and on.
4. Combinations covering a diapason of 3 notes, e. g. - a right hand pluck followed by two hammerings on.
5. Left hand pluck off - free left hand action, no right hand pluck.
6. Left hand hammer on - free left hand action, no right hand pluck.

Hammering up (on) is more common than down (off). Seldom is the little finger of the left hand used to hammer off since its lack of strength will result in poor projection. But the little finger can perhaps be used to finish a combination (check).

II. *Vibrato, Glissando, Tremolo, Trill etc.*

Vibrato - A strong vibrato, very emphasized, is obtained by quickly bending the string back and forth. Thus it is a pitch vibrato. In traditional chinese notation its symbol is: \diamond

String Bends (or pulls) - There are many combinations of bends. Assume the range of a single bend as a major 2nd on the bass frets (the lowest fifth interval of the instrument), and a minor 3rd above this. They are normally notated by a curved arrow above the notes to which the bend applies: \curvearrowright

- a) The bent note can be prepared before the pluck and then released to render a downward bend.

\curvearrowleft
6 5

- b) An upper mordent type is easily executed, notated thus:

\curvearrowright
5 6 5

- c) A rise in pitch, somewhat indeterminate and ornamental is written e.g. **5** \curvearrowright

- d) An indeterminate downward bend, written e.g. **5** \curvearrowleft

Glissandi - There are several considerations to be kept in mind.

- a) Ordinary gliss up or down (check the downward one) - e.g. 5 gliss up to 1: one finger plays the 5 and slides up to the 1.

\rightarrow
5 1

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b) Most glisses are very fast and indeterminate. The gliss arrow is placed above the note number only (not between two note numbers). In actuality this is an ornament.



c) The lower the note, and the lower the string, the better the gliss will speak.

Tremolo is highly idiomatic and effective. It can be performed on melodies one note at a time, and also can articulate a melody while playing arpeggios on other strings, as in western guitar technique. There are several methods of production.

1. Five finger roll (see *Luen* above) - The tremolo can be produced by a five finger roll. The five finger roll is executed mostly on the 1st and 2nd strings; on the 4th string for example, this roll lacks power.

2. With the plectrum-nail of one of the fingers - This method, which utilizes the plectrum-nail almost as a plectrum on its own, renders a more even tremolo than the five finger roll technique.

3. Thumb and Index - This is a 2 finger tremolo executed on one note. This action, of thumb-index-thumb-index is commonly used to articulate melodies.

4. Two string tremolos - These can be produced in a variety of ways, very effectively with the five finger roll.

Trills are very performable on the Pipa, with or without a right hand pluck.

Tremolando is performable, and two types can be called for.

1. A combination of gliss and tremolo, in Chinese notation it would be represented by the gliss sign plus the sign for a five finger roll with the dotted extender line.



2. A combination of bend and tremolo, in Chinese notation it would be represented by the bend sign plus the sign for a five finger roll with the dotted extender line.



III. Harmonics

Both natural and artificial harmonics are obtainable.

Natural Harmonics do not require any special notation; simply specify the resultant note with a ° above it. On the 4th string one can obtain partial numbers 2, 3, 4, 5, 6, 8, 12.

Artificial Harmonics are created by the ball of the right hand; once the tone is produced vibrati and even bends are possible. It is better and easier to indicate the position of the harmonic, i. e. where it is played, but it is not entirely necessary. What is essential is to indicate the resultant note with a ° above it plus the word "artificial".

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IV. Muted Notes

Muted notes are performable on the Pipa. The palm edge of the right hand can be utilized to mute the string being plucked, though this author does not know how common this is in traditional pipa playing. Please check with the performer.

V. Accents and Timbres

All the standard accents can be called for.


[Timbral variation - check whether there is timbral variation possible by:

- a) playing closer to the bridge or closer to the fretboard;
- b) utilizing the flesh of the thumb rather than the plectra;
- c) utilizing different plectra materials]

VI. Harmony and Chords

Harmony and chords, though not as idiomatic as on western fretted strings, are definitely in use on the Pipa. The 1st and 2nd positions are best for playing combinations of notes. The open position is not as good due to the large distance between frets. Position 3 and higher positions are not good due to the small distance between frets. Barring is fine. Two note combinations are best - 3rds, 4ths, and 5ths are effective, and occasionally 6ths on adjacent strings. Plucking the 3rd and 1st strings together, or the 4th and 2nd strings together, give rise to more possibilities. Use of an open string together with a 2 note combination can fill out a chord effectively.

VII. Other Special Techniques

-  - Two strings are crossed and the plucking of them creates a percussive sound. This sound can be played to articulate a rhythm.
- Knocking sounds can be played on the body of the Pipa, and are quite a common technique.

Related Chinese Instruments

Liu qin - a smaller plucked string fretted lute, akin to the pipa

Ruan - also known as the Chinese guitar, it too is fretted and plucked, but has a mellower tone than the pipa; its role is to the pipa as the viola's is to the violin in the west.

Asian/Middle Eastern Relatives of the Pipa

There are many lutes in Asia, many of which are utilized in rendering the modal musics of the Near and Middle East. Here are some notables.

- Biwa (Japan)
- Oud (Middle East)