

Music of the Whole World
- presentation # 2: December 7, 2005

The Musical Bridges between China and the West

- study materials
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with bibliography and discography
compiled by Mark Armanini

The following study materials are being made available to participants in the educational series, **Music of the Whole World**, presented by the Vancouver Inter-Cultural Orchestra (VICO) at the Vancouver Public Library. The presentation, **The Musical Bridges between China and the West**, took place on December 7, 2005.

These materials form part of a larger work in progress (as of December 2005) entitled *Orchestrating the World - a Manual of Intercultural Music Making* by Moshe Denburg. Portions of this work will be made available for downloading on the VICO website from time to time. Go to:

www.vi-co.org
and click on 'VICO Instruments'.

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The Musical Bridges between China and the West - study materials

Chinese and Western music - Comparative Aesthetics

Chinese traditional art music is:

- written, and largely utilizes a number notation;
- homophonic (generally a melody line with some harmonic accompaniment);
- rhythmically simple in duple meter mostly;
- expressive, rubato, ornamented, and nuanced;
- mostly in just intonation.

Western art music is:

- written, and largely utilizes western staff notation;
- polyphonic (independent lines of music played together);
- rhythmically sophisticated by comparison with Chinese, triple meters abound, and compound meters also used;
- expressive and rubato, but not generally as nuanced and ornamented as Chinese;
- in equal temperament.

Some simple considerations

Chinese music values nuance and ornament, and utilizes heterophony (interwoven and related melodic lines) more than harmonic structures. In Chinese traditional art music the pentatonic scale and its transpositions are employed in most compositions, though more modern works certainly go further afield. To the traditional pentatonic mode, C D E G A, the F and B are added. Accidentals are not the norm. In the 20th century, Chinese music acquired a taste for western style harmony, and many Chinese composers are adept at writing for western forces, as well as for Chinese traditional instruments.

The bridge between Chinese and Western music is helped a great deal by the common practice of written music transmission. Outside of the court tradition, Chinese music was, until the mid 20th century, mostly presented by small ensembles, but over the last half century large scale western style orchestras have come into being, utilizing the entire spectrum of Chinese instruments. This tendency, towards larger orchestral forces, would seem to create another area of commonality with western musical practice, and much experimentation is being done, on both sides of the cultural divide, to fuse the two orchestral traditions.

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Chinese Notation

General Considerations

Chinese music is written according to a number system, known as *jianpu*, which means "simplified notation" in Chinese. The system's invention is attributed to Jean-Jacques Rousseau (1742) but its development continued in the hands of Pierre Galin (1786-1821), Aimé Paris (1798-1866), and Émile Chev  (1804-1864). In some circles Chinese number notation is simply referred to as the French Chev  system. Variants of the number system are utilized all over Asia.

Nowadays, Chinese musicians can read western notation as well as Chinese. Many of them, when working from a Western staff notated part, will annotate it with the number system, since this is more native to their training.

The number system is similar in many respects with Indian notation, the main difference is that in Indian notation letters, representing the notes of the gamut, are utilized, whereas in Chinese notation numbers are employed. Like Indian notation, Chinese notation can be very useful as a musical shorthand.

In writing for Chinese instruments there are 3 ways to go: 1. we may use Western notation together with certain markings to indicate the specific techniques; 2. we may use Chinese notation throughout; 3. we may use both Western and Chinese notation in combination.

Note Numbers

To begin with, Chinese notation is conceived as a 'movable *do*' system. For the sake of elaboration we will take the tonic of the system as equivalent to the note 'C'.

The gamut is represented by the following numbers:

1	1#	2	2#	3	4	4#	5	5#	6	6#	7
C	C# Db	D	D# Eb	E	F	F# Gb	G	G# Ab	A	A# Bb	B

Considerations

- The tonic of any major scale will always be **1**, and the tonic of any minor scale will always be **6**.
- The key and tempo are noted at the beginning of the work, e.g.

1 = C 4/4 (C Major)

1 = **Ab** 3/4 (Ab Major)

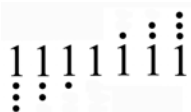
Note that even in cases where the key is minor, or for a mode, only the **1** of the key is indicated.

- Specific modes can be indicated supplementarily, for example **3** = **E** would mean the phrygian mode on E, thus the key signature is that of C major (no accidentals), but the tonic is E.
- Both flat (b) and sharp (#) signs are utilized in Chinese notation.

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- Lower octave notes are indicated by placing a dot \cdot below the number; higher octave notes are indicated by placing a dot \cdot above the number; 2nd lower octave utilizes double dots $\cdot\cdot$ below; and 2nd higher octave by double dots $\cdot\cdot$ above. And so on.

A six octave range would be represented thus:



Durational Elements

Pitch (melodic and harmonic) Notation

Here is the key to durational values, first in Chinese number notation, and below in Western staff notation.

1. A number on its own is a quarter note:

4/4 | 1 2 3 4 | 5 6 7 $\dot{1}$ ||



2. A number with one line below is an eighth note:

4/4 | 1 2 3 4 5 6 | 5 4 3 2 1 1 ||



3. A number with two lines below is a sixteenth note:

4/4 | 1 2 3 4 5 5 3 2 1 2 1 ||



4. Similarly, numbers with 3 lines below are thirty-second notes, with 4 lines below, sixty-fourth notes.

5. A number followed by a dash is a half note:

4/4 | 1 - 2 3 | 2 - 1 - ||



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6. A number followed by two dashes is a three quarter note, and a number followed by three dashes is a whole note:

4/4 | 1 - - 2 | 3 - - 2 | 1 - - - ||



7. A number followed by a dot (.) is a dotted note:

4/4 | 1 . 2 3 4 5 | 4 . 3 2 1 - ||



8. The number '0' represents a rest. Its duration is determined in the same way as that of note numbers.

4/4 | 1 2 0 3 4 5 | 0 4 3 2 1 - ||



9. As in western notation, ties are used to extend the duration of a note, e.g.

4/4 | 1 2 3 4 4 5 4 3 2 1 1 ||



10. Triplets and other added durational indicators are notated as in western music, with a slur over the notes affected and a number indicating values:

3/4 | 1 2 3 4 4 5 | 4 3 2 1 0 ||



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11. Harmonies, chords, double stops, and so on, are notated in a vertical fashion, thus:

$$\frac{4}{4} \left| \begin{array}{ccc} 5 & 7 & 6 - \\ 3 & 5 & 4 - \\ 1 & \underline{23} & 4 \underline{32} \end{array} \right| \begin{array}{c} 5 - - - \\ 3 - - - \\ 1 - - - \end{array} \parallel$$

Rythmic Notation

Non-pitched rhythms can be notated with **X**'s, and the rules of duration are the same as for pitch representations. Here is example 8 above, in rhythmic notation:

$$4/4 \mid \underline{\underline{\mathbf{x}\mathbf{x}}} \quad \underline{\underline{\mathbf{o}\mathbf{x}}} \quad \mathbf{x} \quad \mathbf{x} \mid \underline{\mathbf{o}} \quad \mathbf{x} \quad \underline{\underline{\mathbf{x}\mathbf{x}}} \quad \mathbf{x} - \parallel$$

To further study Chinese notation, and number notation in general, peruse Chinese instrumental scores. Also, for study leads, see the bibliography below.

Descriptions of selected Chinese Instruments

Dizi - (pronunciation: *deets*) A bamboo flute with a membrane covering one hole to create an increase in resonance and a typical 'buzzing' quality. It is really a renaissance flute with a membrane. There are 6 playing holes. It is mainly a diatonic instrument, and since its projection is excellent it is widely utilized as a solo instrument, both in the orchestra and in smaller ensembles.

Erhu - (pronunciation: *er' - hu*) A bowed instrument from China with a long neck and two strings between which a horsehair bow is placed. The strings are tuned to a fifth. The sound box may take different shapes - hexagon, octagon, round, or ellipse - and is covered on one side by snakeskin. The Erhu performs an essential role in Chinese classical music as well as in the folk music tradition. It is held vertically to play - the lefthand plays without a fingerboard, while the right hand holds the bow and plays one string at a time.

Gaunzi The guanzi, also known as *bili*, is a double reed instrument with a cylindrical wooden or bamboo body. It comes in various sizes, and typically has 7 finger holes and one or two for the thumb. It is quite ancient, and has been used in a variety of musical contexts over the centuries, often as a solo instrument used to evoke a mood of sadness.

Pipa - A pear shaped lute with 4 strings (tuned A D E A) and 19 to 26 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.

Qin - (pronunciation: *chin*) A seven-stringed zither without bridges, it is widely recognized as the Chinese instrument with the highest pedigree, as it has over 3000 years of history. It can be called Qin, but is also referred to as Guqin, as "gu" implies 'ancient'. Acoustically it is of very soft dynamic, and is not played as an ensemble instrument and hardly in public. It is reserved as an instrument of personal discipline and enrichment.

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Ruan - A round shaped lute with a short neck, sometimes called the Chinese guitar, the Ruan has 4 strings (tuned A D A D) and 24 frets. It has a history of 1600 years and is used by orchestras and chamber ensembles as well as for accompanying operatic performances. Together with the Pipa, it has a major role to play in the plucked string section of all Chinese ensembles.

Sanxian - (pronunciation: *san' - shee - an*) A long necked fretless lute with three strings. In Chinese, "san" means three and "xian" means strings. The resonating body is made of a round wooden box covered with snake skin, just like an erhu. The instrument is played with a plectrum and is widely used to accompany singing.

Sheng - (pronunciation: *shung*) The sheng is a mouth organ made of bamboo, consisting of a bundle typically of 17 pipes (but as many as 36 in some larger models) attached to a wind chamber. The pipes are fitted with free reeds, nowadays made of brass. The Sheng is an ancient Chinese instrument and since it is capable of sounding up to 6 notes at once, it is utilized both as a solo voice and for harmonic accompaniment.

Suona - Known to some as the Chinese oboe, the suona is a double reed instrument with a long body of wood fitted with a flaring brass bell. It has a very brilliant, even strident, tone, and projects very well in any musical situation. For this reason it is utilized as a solo instrument extensively. As well, it has long played a role in weddings, festive events, and other ceremonial occasions. It comes in various sizes to accomodate different pitch ranges.

Xiao - (pronunciation: *shee-ow*) This is a vertical bamboo flute with the same range as the dizi but without a membrane. It is not as flexible as the dizi and is harder to intone. It is a delicate instrument with a softer dynamic. The xiao is excellent for expressive solo playing, but does not project well as part of a larger Chinese ensemble or orchestra.

Yang Qin - (pronunciation: *yang - chin'*) A hammered dulcimer of China, it is played with rubber tipped bamboo mallets. It is capable of both melodic and harmonic roles, and has a range of more than 4 octaves. It is tremendously flexible in its musical usefulness, and can cross cultural borders with ease.

Zheng - (pronunciation: *jung*) A plucked half-tube wood zither from China, with movable bridges over which strings are stretched. The strings were traditionally made of silk, but today they are usually made of steel or metal wound nylon. The modern Zheng usually has 21 strings, tuned to a pentatonic scale. The performer uses the right hand to pluck the strings, and the tone can be modulated by the left hand pressing the string on the non-speaking side of the bridge. Excellent arpeggios, chords, glissandi, bends, and delicate ornaments are obtainable from the instrument.

Orchestration of Chinese instruments

To access specific information on writing for Chinese instruments, please go to www.vi-co.org, and click on 'VICO Instruments'. An expanded study guide for musicians and composers, including orchestration materials, will be made available for downloading.

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Selected Bibliography, Discography, and Study Leads

compiled by Mark Armanini

English books on Chinese Music

Folk Music in China

Stephen Jones
Oxford University Press 1995
ISBN 0-19-816718-0

Celestial Symphonies

Robert Wood Clark
Gordon Press 1976

Chinese Musical Instruments

Alan Thrasher
Oxford University Press 2000
ISBN 0-19-590777-9

Cantonese Music Societies in Vancouver - A Social and Historical Survey

Huang Jin Pei and Alan R. Thrasher
English Article on Chinese Music
Chinese Journal for Traditional Music, 1993

The Way of the Pipa: Structure and Imagery in Chinese Lute Music .

John E. Meyers
Kent State University Press 1992
ISBN 0-87338-455-5

Chinese Music Monograph Series

Sin-yan Shen, Yuan-Yuan Lee, editors
Chinese Musical Society of North America, 2001
ISBN 1071-5649

- Chinese Music in the 20th Century
- Chinese Music and Orchestration
- Chinese Musical Instruments
- China; A Journey into its Musical Art
- What Makes Chinese Music Chinese
- Theory, Composition and Analysis
- Musicians of Chinese Music
- The Regional Music of China

Rhapsody in Red - How Western Classical Music became Chinese

Sheila Melvin, Jin Dong Cai
Algora Publishing 2004
ISBN 0-87586-179-2
ISBN 0-87586-1865 (e book)

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Selected Discography

Recordings of Chinese/Western music

Of Wind and Water

by Mark Armanini
 from - *The Spirit Emerges*
 performer: Qiu Xia He, pipa
 Bohuslav Martinu Philharmonic
 Chroma Disc, 1995

Cang Cai: Concerto for Percussion

by Tang Jianping
 performer: Li Biao
 Beijing Symphony Orchestra

Green and Gold

by Mark Armanini
 performers: Heidi Krutzen , Vivian Xia, Qiu Xia He, David Harding, Ji Rong Huang
 Chroma Disc, 2005

Suite Popular Brasileira

by Celso Machado
 from - *Endless: Silk Road Music*
 Jericho Beach Music 1997

Heartland

by Mark Armanini
 from - *Heartland*
 Orchid Ensemble, 2000

Nomads Rustic Song

arr by Mark Armanini
 from - *Village Tales: Silk Road Music*
 Silk Road Music 2001

Whispering Winds

by Mark Armanini
 from - *Dancing Under the Moon*
 Vivian Xia, yangqin
 Music Box Productions 2001

Rui-shi Zhuo

Compositions by Rui-shi Zhuo
 Artifact Music, 2004

The Musical Bridges between China and the West - study materials...continued

Outside the Wall

by Randy Raine Reusch

Purple Lotus Bud

by John Oliver

from the album - *Outside the Wall*

Mei Han, zheng

East and West I

by Hwang-Long Pan

ISCM Taiwan Pan 9901

Chinese/Western General Study Leads

BC Chinese Music Association

#303-8495 Ontario Street

Vancouver BC Canada V5X 3E8

UBC Music Library

UBC Asian Studies Library

Vancouver Public Library

Chinese Music Society of North America

Po Box 5275

Woodridge IL 60517-0275

USA

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