

EAST MEETS WEST-CHINESE TRADITIONAL INSTRUMENTS
LESSON PLAN for 9th -12th Grade
(UNIT 1-lesson 3: Timbre and Constructional Design)

Class/Age: 9th-12th Grade
Lesson Time: 45 minutes

Leading Questions: How do specific timbres derive from the construction of Chinese instruments?
How does this impact how Chinese traditional instruments are played?

Objective: Students will gain an understanding of how organological construction and timbre profile constitute tonal color and musical aesthetic.

Critical Vocabulary: timbre, tonal color, organology, chordophone, membranophone, metallophone, aerophone, envelope, pitch, frequency, amplitude, Hornbostel-Sachs index.

Content Standard:

- New York State Standard #1. Creating, Performing, and Participating in the Arts. Students will actively engage in the processes that constitute creation and performance in the art
- National Standard #2. Performing on instruments, alone and with others, a varied repertoire of music.
- National Standard #5. Reading and notating music.
- National Standard #6: Listening to, analyzing, and describing music
- National Standard #7: Evaluating music and music performances

ELA Standards:

- Standard RL: Craft instruction; determine meanings through figurative use of language.
- Standard L: Use of knowledge of language and conventions.

National Standards for Music: 2. Performing with voice, instrument, alone or with others, a varied repertoire of music.
5. Reading and notating music.
6. Listening to, analyzing and describing music.
9. Students will improvise with instruments and voice.

On Board: Objective worded as “How does the shape of the instrument create the shape of the sound? How do features of timbre like ‘envelope’, ‘amplitude’, and ‘frequency’ color Chinese instrumental timbre?”; Do Now; Definitions for frequency, pitch, amplitude, envelope, wave.

Do Now: Students working on <http://www.animations.physics.unsw.edu.au/jw/timbre> software will model envelopes of various timbres that reproduce the qualities of a selected Chinese instrument from their visual design project assigned in Lesson 2.

Lower-order thinking prompts: What are the specific technological factors that create the various parameters governing tonal color? How does design affect human vocal timbre? How does this correspond to other instruments?

Higher-order thinking prompts:

How do sonic aspects such as envelope, register, frequency, and wave impact timbre profile and how do these features express a cultural aesthetic or do they?

How do these specific features of timbre evoke a certain ethos or have the power to shape mood, tone, and aesthetic?

Students turn and talk focusing on these prompts. Substantiate your hypotheses with supporting details and back these up with secondary proofs and speak to the various elements, which constitute timbre.

Procedure:

1. Students discuss findings from online research on envelopes of Chinese instrumental timbres.
2. Students review the various “Spring Rain” instrumental versions and extrapolate how the profile of the various timbres might differ.
3. Students view the actual timbral profiles (supplied in PPT presentation) and discuss their expectations versus the actual amplitudes, envelopes, etc. of the Chinese instruments examined.
4. Students posit why the constructional shape of a given instrument might yield the given timbral profile and also analyze how this construction and its resultant timbre impact playing considerations.

Ongoing Peer-to-Peer and Self Assessment in Instruction:

Methods: Teacher modeling, and student-led modeling, participation with peer-peer and self evaluation, small groups, and group ensemble, if appropriate video assessments.

In pairs, students will evaluate the success of their own and their partners’ improvised work.

Self-selected students share for class and based on teacher assessment of individual work.

Class reflection on impact of timbre in music and especially as germane to Chinese traditional repertoires..

Written Reflection: Write a reflection of one well-reasoned coherent and substantiated paragraph on the benefit or impact (positive or negative/pro or con) impact of timbre in music and especially as germane to Chinese traditional repertoires..

Materials: Timbre handout, computers, PPT presentation, videos of “Spring Rain” (accessed from PPT), <http://www.animations.physics.unsw.edu.au/jw/timbre>.