

**The history and distribution of  
the free-reed mouth-organ in  
SE Asia**

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# The free-reed mouth-organ in SE Asia

- One of the most distinctive musical instruments of the SE Asian area is the free-reed mouth-organ, best known as the Chinese *sheng*, and the origin of the European harmonica.
- It is also one of the few instruments for which there are extensive archaeological materials, as bronze skeuomorphs of the gourd originals were made in China from at least the Dian period.
- In addition, some more classical, instruments survive as grave goods in China. In addition, the free-reed mouth-organ is often represented in mural art in Burma and Thailand.
- The paper proposes an organography of this instrument, showing how it evolved and diffused over time, bringing together archaeology, ethnography and iconography.

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# Morphology of the free-reed mouth-organ

- Free-reeds are known only from traditional societies in South and East Asia, although since their adoption into the European instrumentarium, they have dispersed all over the world in the shape of the accordion, the harmonium, the concertina and the harmonica.
- The main free-reed instruments in SE Asia apart from the mouth-organ are the transverse horn and the transverse or end-blown fingerhole pipe, where the pitch is altered by stopping fingerholes, exactly as on a transverse flute. Unlike other reeds, the free reed does not overblow, and as a consequence, instruments have a limited range. However, the potential to sound two notes on a single reed according to whether the air is blown or sucked can potentially increase the notes available.
- The mouth-organ consists of a series of graduated pipes, each one with an individual free reed producing a different pitch. These pipes are inserted into a wind-chest and either end inside it or pierce it. The player blows into an embouchure connected to the wind-chest which forces air through all the pipes simultaneously.
- The pipes have a fingerhole above the wind-chest and by stopping this hole, the sound of the pipe is muted. Thus to play an individual note, all pipes must be stopped except one. As a consequence, the mouth-organ lends itself to playing chords and this polyphonic sound can be considered typical.

# Morphology of the free-reed mouth-organ

- There are essentially four morphological subtypes in SE Asia;
  - I. Pipes spaced out in a roughly circular array projecting outwards from a bottle-gourd wind-chest with a tubular embouchure
  - II. Closely spaced pipes in a circular array, exactly parallel to one another, with an embouchure directly in a wooden or metal wind-chest
  - III. Closely spaced pipes in two parallel lines, with an embouchure directly in a wooden tubular wind-chest
  - IV. Widely-spaced pipes in two roughly parallel lines passing through a tubular wooden wind-chest with a long tubular embouchure

# Geographical distribution of mouth-organ types

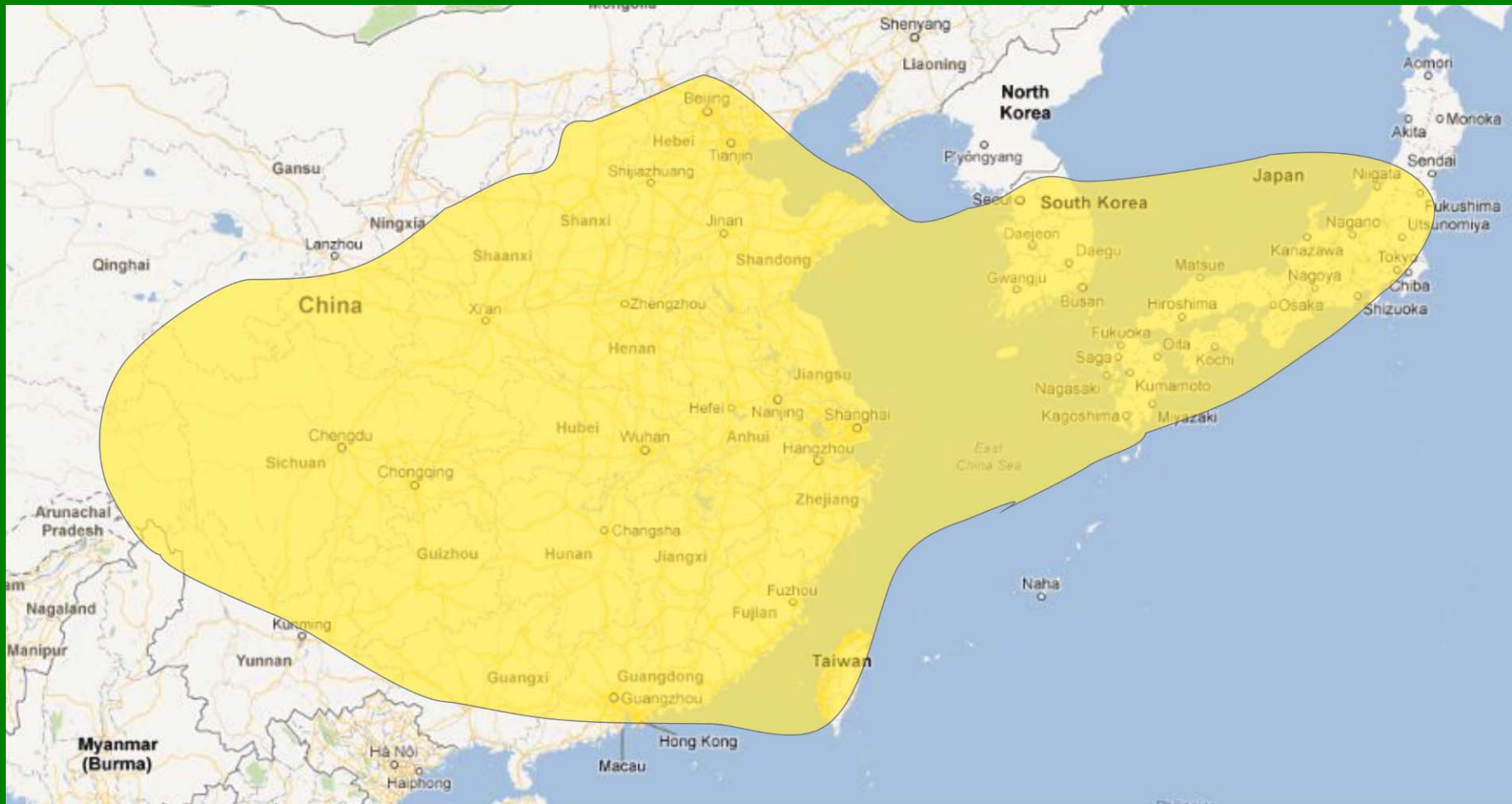
- **Type**      **Countries**
- I              NE India, Bangla Desh, Burma, China, Thailand, Laos, Việt Nam, Borneo
- II              China, Japan, Korea
- III             Thailand, Laos, Vietnam
- IV             China, Thailand, Laos, Việt Nam



# The Hmong-type free-reed mouth-organ



# The East Asian type free-reed mouth-organ



# Archaeology

- Metal wind-chests, which appear to be skeuomorphs of gourds, occur in Dian archaeological sites in Yunnan as far back as 200 BC.
- The remains of a mouth-organ, alongside the more famous arrays of tuned bells, occur in the tomb of Marquis Yi of Zeng, in Suixian country, Hubei and dated to 433 BC.



# Archaeology II

- The *sheng* can be seen in pictographs dating from 1200 BC with a gourd wind chamber, and looks very similar to the current southern Chinese and northern Thai *naw*.
- The 'oracle bones' of the Yin dynasty (ends 11-12th century BC), mention it under the name *ho* (a small *shêng*); and the *Shih-ching* (Book of Odes) attests its use before the time of Confucius (551-479 BC), who is believed to have played the instrument. Another ancient text, the *She-king*, says:
  - *The lutes are struck, the organ blows*
  - *Till all its tongues in movement heave.*
  - *The drums loud sound, the organ swells*
  - *Their flutes the dancers wave.*



# Archaeology III

- The earliest images of the mouth-organ appear to be those on Chinese bronzes, where it is shown as part of a ritual orchestra.
- A performance of Ya-Yueh ritual music decorating a *hu* wine-vessel from the Warring States period (480-221 BC) now in the Musée Guimet. From left to right, the instruments appear to be pan-pipes, bell-chimes, mouth-organ, stone chimes, mounted barrel-drum and standing clapper-drum.





# Archaeology IV

- By the Tang period, representations of the *sheng* become relatively common. The repertoire of the Tang court is being published (Picken 1981-1990) and melodic instruments such as the lute and mouth-organ feature in the scores.
- Photo shows a female *sheng* player represented on the tomb of Wang Jian (847-918 AD), in the Yongling Museum, Chengdu.



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# Archaeology V

- Việt Nam is one country apart from China where there is significant historical testimony concerning the antiquity of the mouth-organ. Photo A shows an image of a mouth-organ player on a libation cup, on the Việt Khe coffin (ca. 200 AD) now in the Vietnamese Historical Museum in Hanoi. Photo B shows a mouth-organ player, Ngọc Lũ bronze drum





# Archaeology VI

- Musical instruments, glass mosaic, Wat Xieng Thouong, Luang Prabang

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# Archaeology VII

- The mouth-organ does not play a significant role in the Burmese instrumentarium today. One of the more intriguing pieces of textual evidence for the mouth organ occurs in the Tang chronicles. In 802 AD, the ruler of the Pyu kingdom sent a troupe of thirty-five musicians to the Tang capital at Yang Chao including two mouth organs.
- Illustration of mouth organ players at Bagan



# A possible historical schema I

- The distributional evidence suggests that we should look to the reed-pipes of Laos and Vietnam as the original sources of the free-reed mouth-organ.
- Somewhere in the region between Laos, Vietnam and Yunnan is the most likely home of the earliest instruments, which would have had gourd wind-chests and a small number of pipes.
- This was probably at an early period, prior to the dispersal of Austroasiatic languages, since the language phylum and the gourd-organ largely overlap. If so, then this may have been before 4000 bp, when Austroasiatic began to disperse





# A possible historical schema II

- The Dian kingdoms of Yunnan took up the mouth-organ and began to make copies of the wind-chambers in metal, presumably by the third century BC.
- When the Chinese first came into contact with them, they initially copied the gourd-resonated instruments in more costly materials.
- By the Tang period they had demonstrably re-arranged the instrument to resemble the *sheng*, but probably somewhat earlier. This type of mouth-organ was exported to Japan and Korea by the eighth century and has remained largely unchanged in ritual orchestras.

# A possible historical schema |||

- There is no real evidence for the evolution of the Lao/Thai *khaen* instruments, but these are probably a restructured version of the *fang shēng* could be relatively late, perhaps sixteenth century, to judge by the representation at Bagan.
- Similarly, there is no iconography for the Hmong *qen*. However, nearly identical instruments occur wherever the Hmong are found, pointing to its dispersal with the ethnic group itself, which can probably be placed at least 2500 BP.

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