

Kangxi, Father Amiot, and “Improvements” to Ritual Instruments in Eighteenth-Century China

*Stewart Carter and Zhiyu (Alex) Zhang
American Musical Instrument Society
Memphis, Tennessee, 31 May-3 June 2023*

The Kangxi Emperor (1654-1722; r. 1661-1722), second emperor of the Qing Dynasty. Portrait by an unknown court artist.



Joseph-Marie Amiot, *De la musique chinoise*. Paris, Bibliothèque nationale, Res. Vmb. ms. 14 (1754).



Joseph-Marie
Amiot, S.J. (1718-93)

De la Musique Chinoise.

Après avoir donné une connoissance aussi exacte qu'il m'a été possible de la Musique que les Chinois cultivoient anciennement, il paroît naturel que je donne une notice de celle qu'ils cultivoient aujourd'hui. Je pourrois m'acquitter de cette espèce d'obligation en disant seulement que sans avoir rien changé aux Principes d'où ils ont tiré les Fondemens de leur Systeme musical, ils sont néanmoins encore moins avancés qu'ils ne s'étoient il y a 2 ou 3 mille ans, à en juger par la comparaison des monumens anciens avec ceux qu'ils ont érigés de nos jours.

L'Empereur Kang-hi avoit entrepris de faire adopter les Principes de la Musique Européenne qu'il goûtoit très fort dès qu'on lui en eût expliqué les 1.^{res} Elémens. Il Employa pour cela le P. Pereira jésuite Portugais, et ensuite M.^r Bedrini missionnaire de la Propagande,

Joseph-Marie Amiot,
*Mémoire sur la musique
chinoise tant anciens que
modernes* (Paris, Biblio-
thèque nationale, ms
Bréquigny 13), title page.

2 suppl. fol.
8647

Mémoire
*sur la Musique des chinois tant anciens que
modernes.*
*Les figures qui doivent accompagner ce mémoire, pour en -
faciliter l'intelligence, sont sur 2 cahiers séparés, dont l'un
contient les figures présentées à la chinoise, et l'autre les mêmes
figures expliquées en français.*

*quid verum, atque decens, curo, et rogo: et omnis in hoc sum:
hortus spirit. 1. ad m. & enat. m.*

*Lülü zhengyi
xiabian, 1713*

欽定四庫全書

經部

御製律呂正義下編卷一

詳校官閣學士管理樂部臣鄭奕孝

洗馬臣王坦修覆勘

總校官編修臣王燕緒

校對官待詔臣胡士震

謄錄監生臣吳繼緒

繪圖監生臣牛炳文

Lülü zhengyi
houbian, 1746

欽定四庫全書

經部

御製律呂正義後編

御製序

卷首上
下

詳校寓閣學士管理樂部郎中

洗馬臣王坦修覆勘

總校官編修臣王燕緒

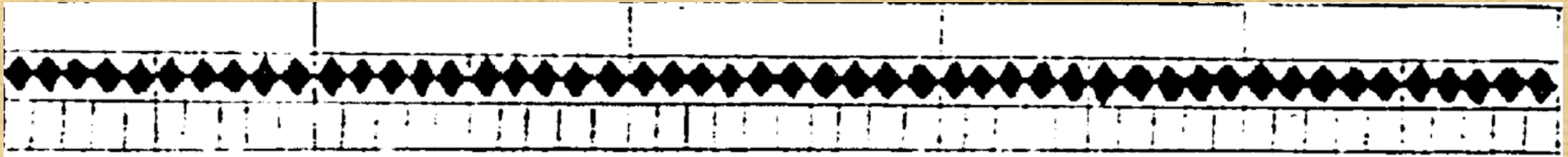
校對官編修臣勵守謙

謄錄監生臣呂長立

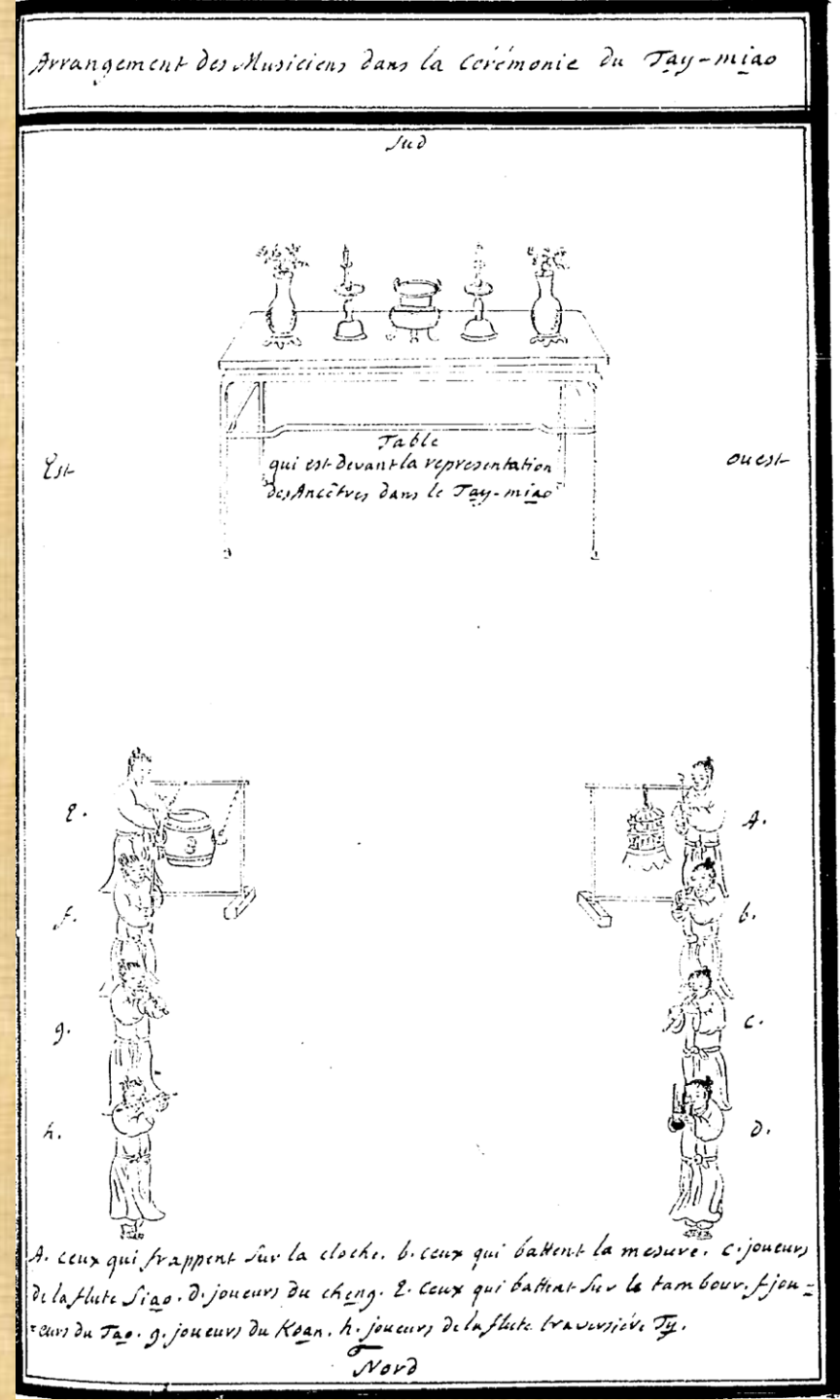
Qing-era Chinese measurements

- *chi* (尺) = Amiot's *pied* (foot) = 32.125 mm
- *cun* (寸) = Amiot's *pouce* (thumb) = 3.2125 mm
- *fen* (分) = Amiot's *ligne* (line) = 0.32125 mm

Chinese ruler from Amiot's 1776 manuscript, part 2, planche 4. This rule is 5 *pieds* (尺) in length. The black “diamonds” represent grains of millet, an ancient means of measurement.



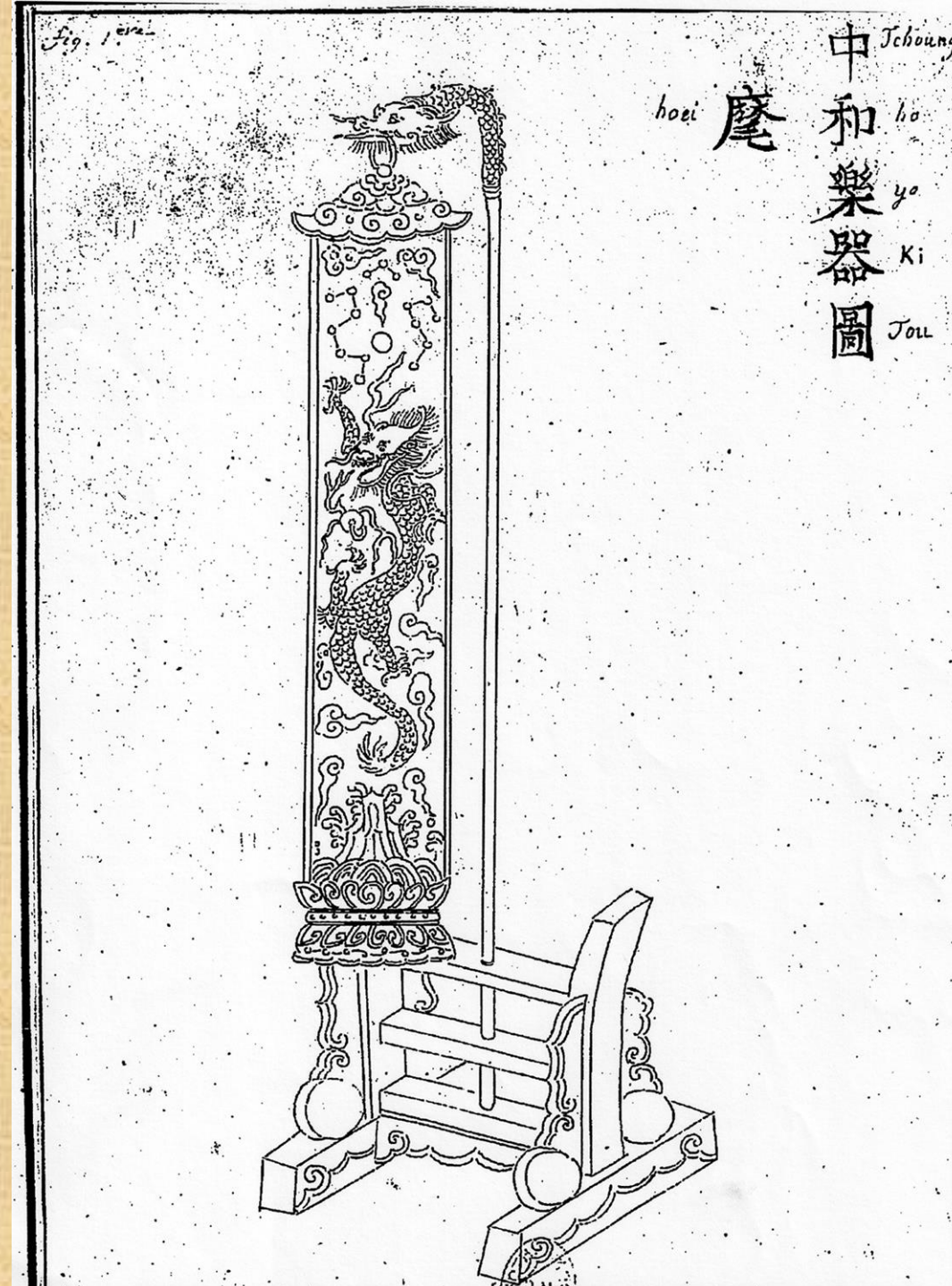
Arrangement of musicians for a ceremony honoring the emperor's ancestors, called the *tai-miao*.

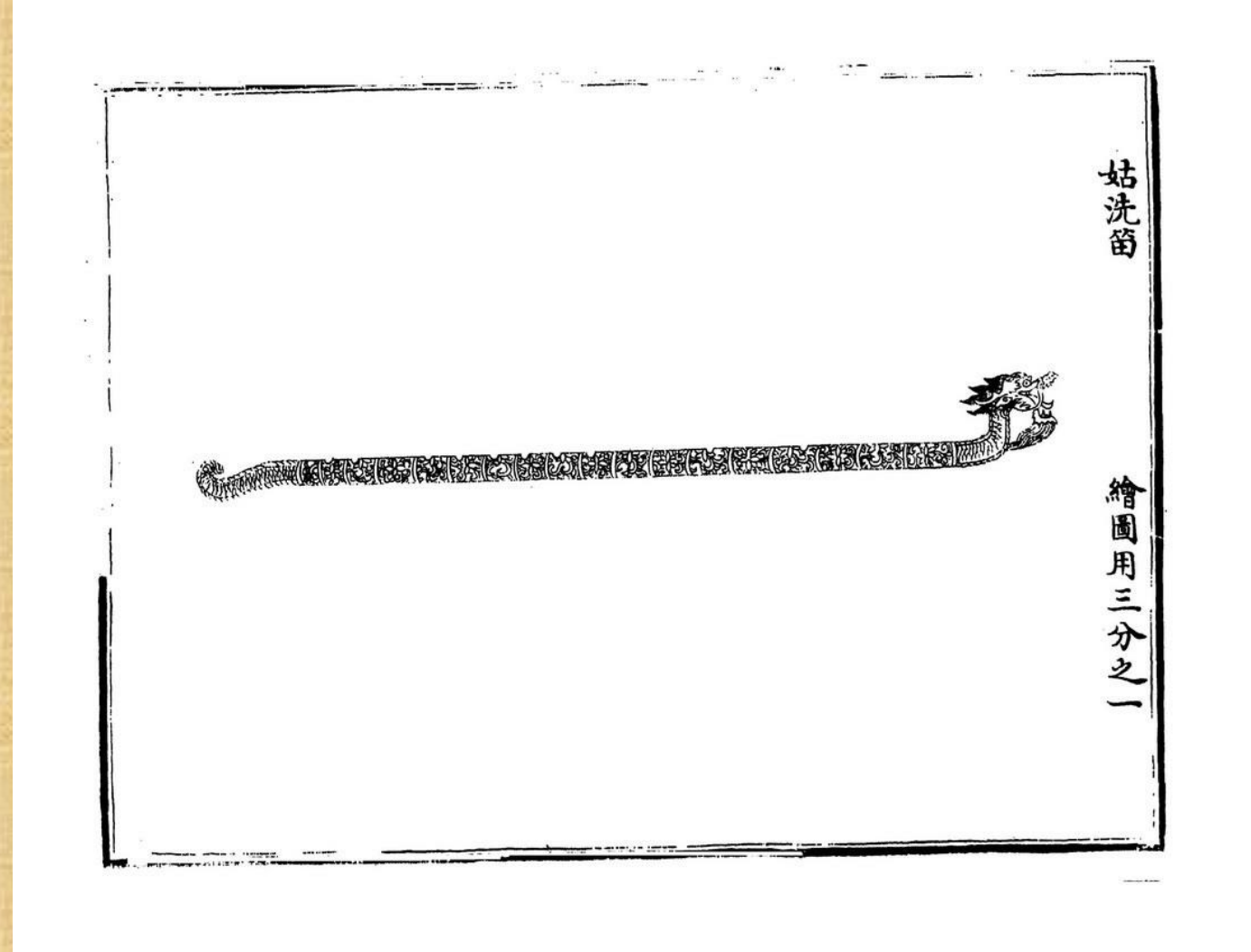
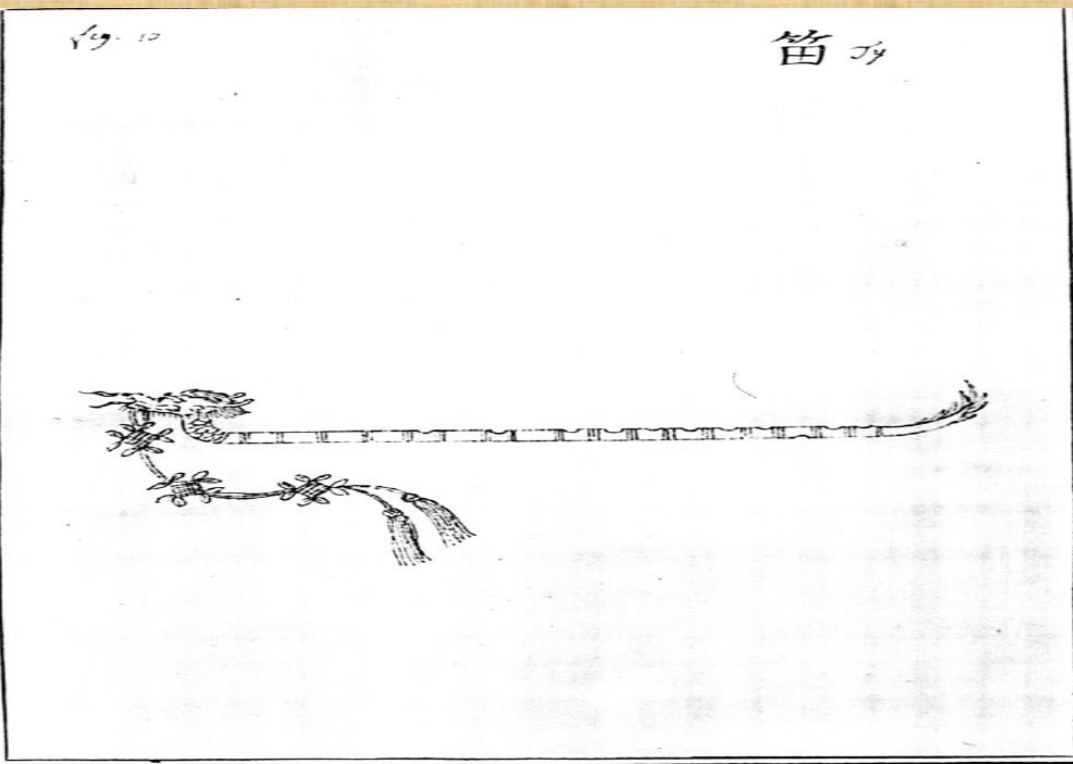


Hoei (*hui*; banderole), decorated with dragons, clouds, and other “mysterious figures” and embroidered in gold.

Amiot, 1754 ms, Fig. 1.

The musicians involved in some Qing court rituals were to assemble at the *hui* to play the emperor’s music.





Left: *dizi*. Amiot, 1754 manuscript, fig. 10.
 Above: *dizi*. *Lülü Zhengyi houbian*, vol. 3, 5177.

Measurement units for Amiot and *Houbian*

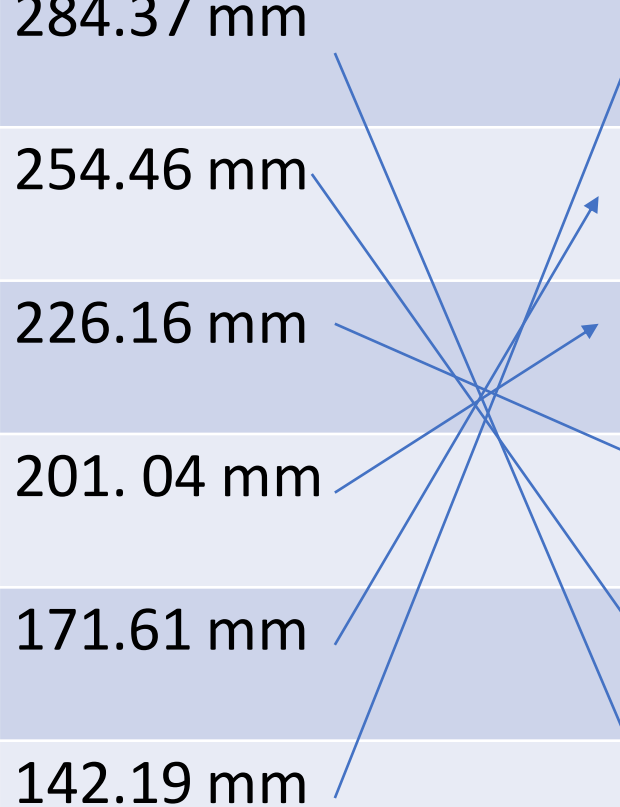
Amiot's *pied* (foot) = 1 Chinese *chi* (尺) = 321.25 mm

Amiot's *pouce* (thumb) = 1 Chinese *cun* (寸) = 32.125 mm

Amiot's *ligne* (line) = 1 Chinese *fen* (分) = 3.2125 mm

Dizi of kou-si (guxi, in the Key of A)

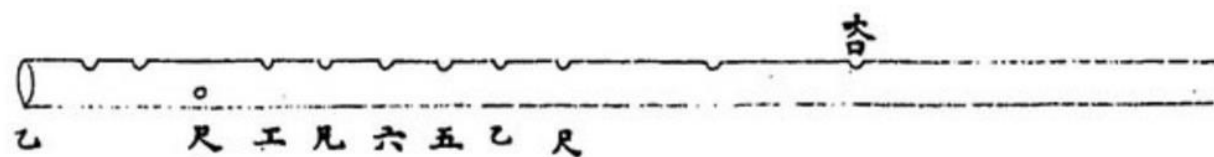
parameters	Amiot	Houbian
total length	402.1 mm	402.1 mm
diameter	13.89 mm	13.89 mm
Mouth hole to fingerhole 1	284.37 mm	142.19 mm
Mouth hole to fingerhole 2	254.46 mm	171.61 mm
Mouth hole to fingerhole 3	226.16 mm	201.04 mm
Mouth hole to fingerhole 4	201.04 mm	226.16 mm
Mouth hole to fingerhole 5	171.61 mm	254.43 mm
Mouth hole to fingerhole 6	142.19 mm	284.37 mm



Dizi of *kou-si* (*guxi*, in the Key of A), *houbian*
vol. 2, page 5179

姑洗笛律分

徑四分三釐五毫長一尺八寸二分八釐六毫繪圖用三分之一

[illegible]

四四二六
五三四二
六二五八
七〇四〇
七九二〇
八八五二
九九五九
一〇八三六
一一五七二
一二五一七
尺寸分釐毫

Xiao, end-blown
flute.

Amiot, 1754 ms,
fig. 13.



Left: *xiao*, Houbian, vol. 3, 5173

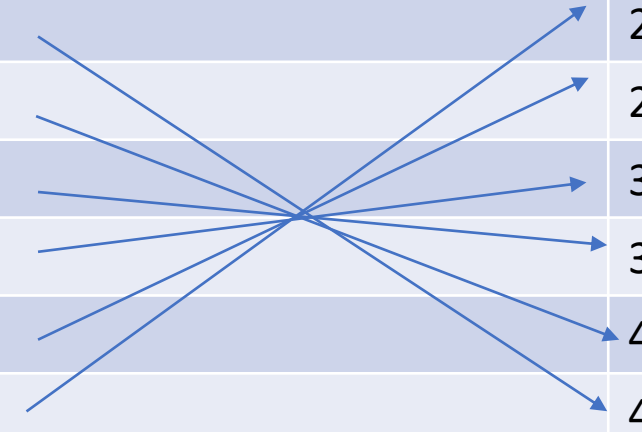
fig. 13.

簫 . *xiao*



Xiao of kou-si (guxi, in the Key of A)

parameter	Amiot	Houbian
Total length	570.2 mm	570.2
diameter	14	14
Mouth hole to fingerhole 1	475.8	226.2
... to fingerhole 2	402.1	273.1
... to fingerhole 3	359.9	319.9
... to fingerhole 4	319.9	359.9
... to fingerhole 5	273.1	402.1
... to fingerhole 6	226.2	475.8
-- to hole in rear, not played	508.9	508.9



Right: *Qing*, chime, typically made of stone, agate, or jade. Often used in tuned groups of 16. *Lülü Zhengyi houbian*, vol. 2, 5008. (also in *xiabian*)

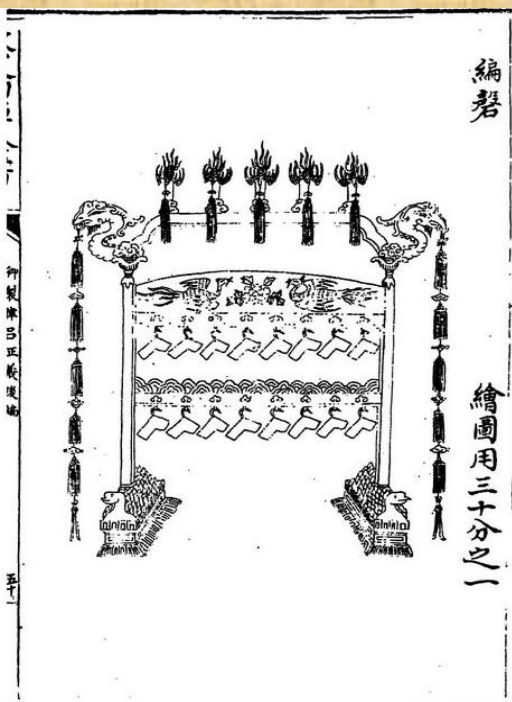
A-B 7寸2分9釐0毫 = 234.2 mm

B-E 5寸4分6釐7毫5絲 = 175.6 mm

A-C 1尺0寸9分3釐5毫 = 351.3 mm

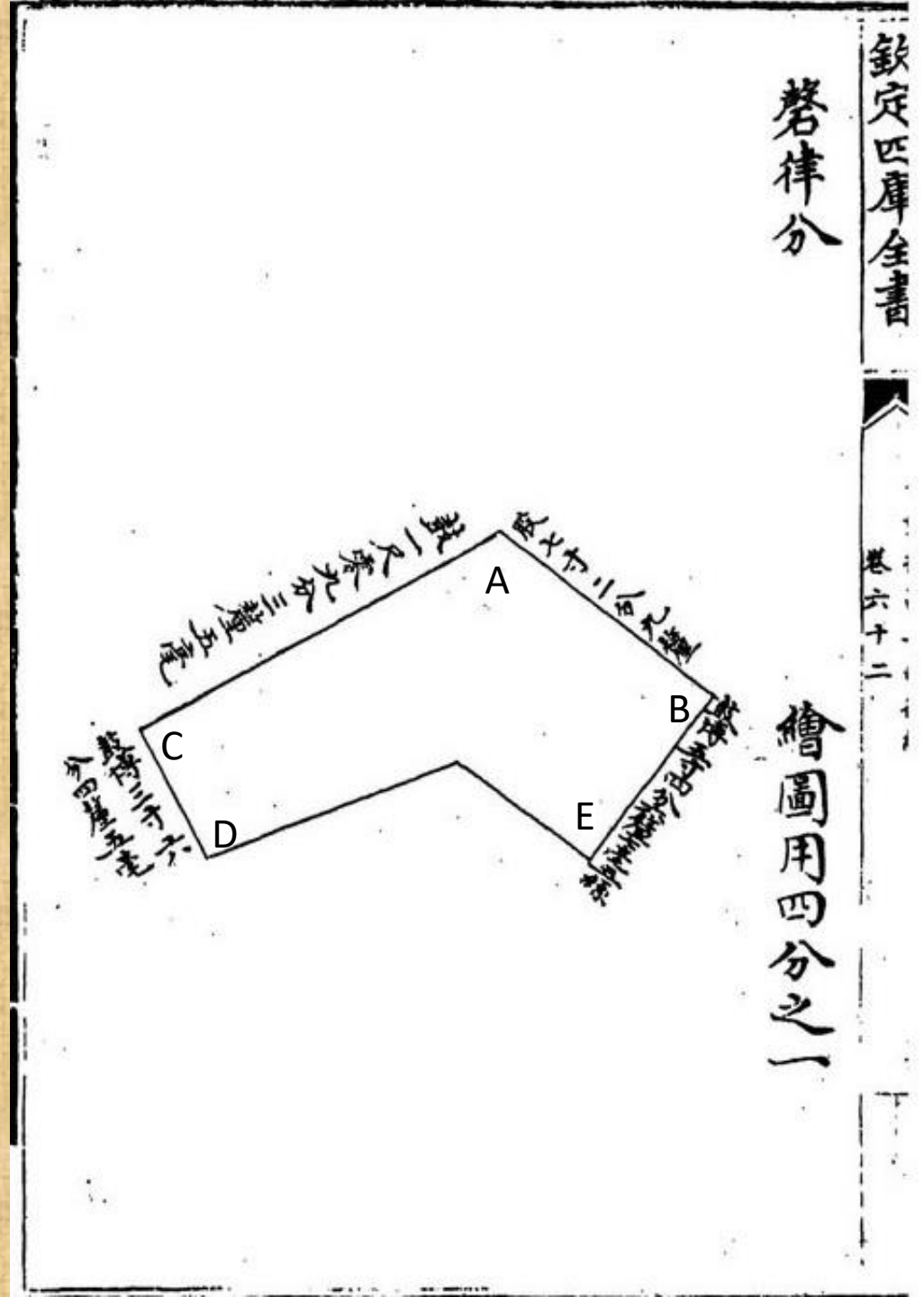
C-D 3寸6分4釐5毫 = 94.5 mm

These dimensions match those in Amiot's 1754 ms, p. 63.

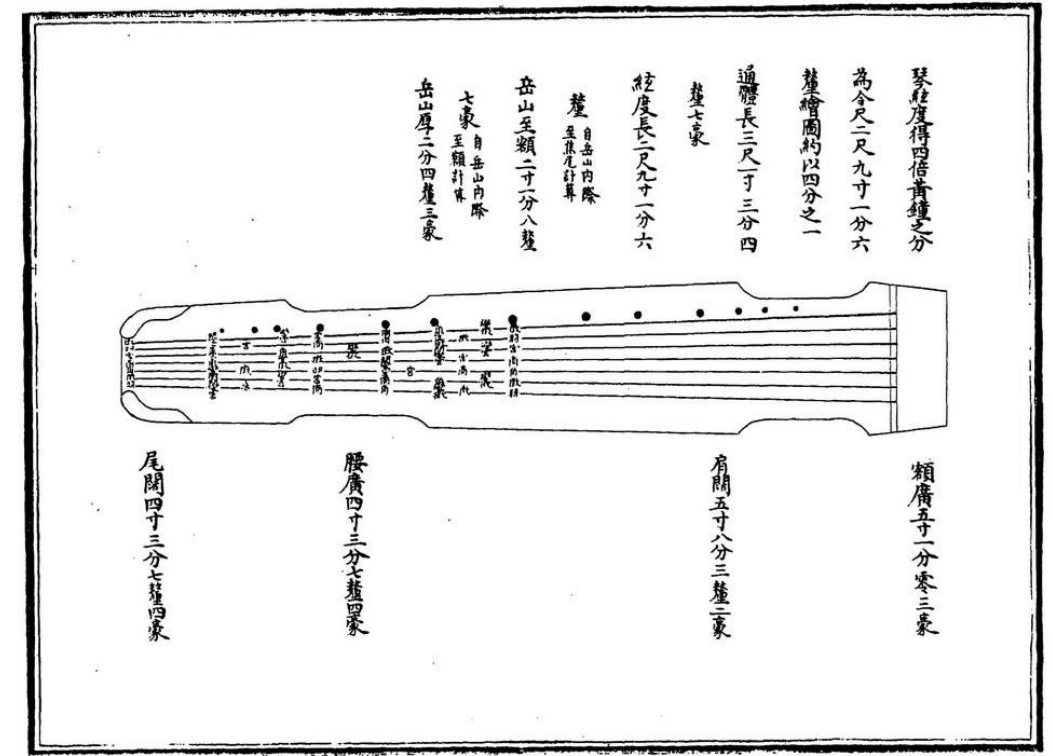


Left: *Bianqing*—set of 16 tuned chime stones.

Lülü Zhengyi houbian, vol. 2, 5007.

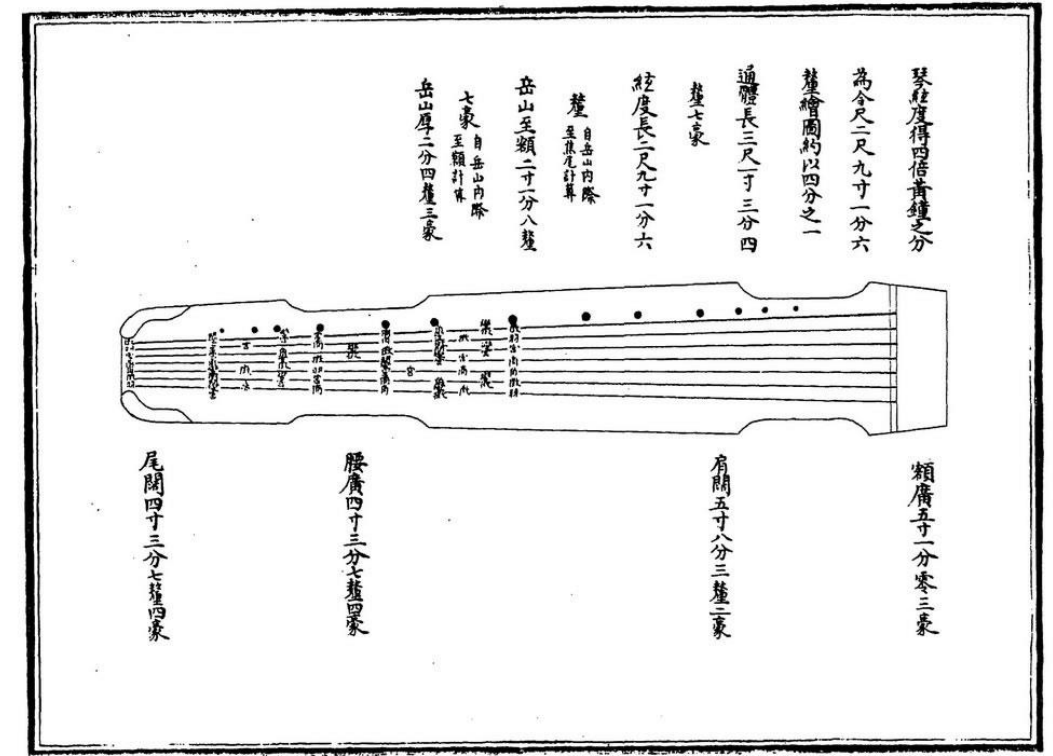


Guqin, 7-string zither.
Xiabian,
 608. One set of
 measurements in
 Amiot's 1754 manuscript
 matches those in the *Xiabian*.



- Length: 3尺1寸3分4釐7毫 = 1007 mm
- Length of strings: 2尺9寸1分6釐 = 936.8 mm
- Soundpost to the "forehead": 2寸1分8釐7毫 = 70.26 mm
- Width of the "forehead": 5寸1分0釐3毫 = 163.9 mm
- Width of the "shoulder": 5寸8分3釐2毫 = 187.4 mm
- Width of the "waist": 4寸3分7釐4毫 = 140.5 mm
- Width of the "tail": 4寸3分7釐4毫 = 140.5 mm
- Thickness of bridge: 2寸4分3 = 78.06 mm

Guqin, 7-string zither.
Xiabian,
 608. One set of
 measurements in
 Amiot's 1754 manuscript
 matches those in the *Xiabian*.



- Length: 3尺1寸3分4釐7毫 = 1007 mm
- Length of strings: 2尺9寸1分6釐 = 936.8 mm
- Soundpost to the "forehead": 2寸1分8釐7毫 = 70.26 mm
- Width of the "forehead": 5寸1分0釐3毫 = 163.9 mm
- Width of the "shoulder": 5寸8分3釐2毫 = 187.4 mm
- Width of the "waist": 4寸3分7釐4毫 = 140.5 mm
- Width of the "tail": 4寸3分7釐4毫 = 140.5 mm
- Thickness of soundpost: 2寸4分3 = 78.06 mm

Thanks to the AMIS Program Committee!

Questions?