

中國為東方文明古國，古時號稱禮樂之邦，上古時代為東南亞音樂發源地之一，中古時代並作歐亞兩洲之音樂集散地。史書雖會記載我國早在五千年以前，伏羲作瑟、神農作琴、女媧製笙簧之說，因乏遺跡可證，未為世人所深信。而距今三千年以前之周朝，樂教制度已備，且有製造精良之樂器；考證尚多，應無可疑。吾人今日在臺灣，仍可在國立歷史博物館看到民國十二年與廿五年在河南新鄭與輝縣先後出土之周朝特鐘、編鐘、編磬等古器，民間亦有人珍藏唐太宗時（公元六二七年）之七絃古琴。

金、石、絲、竹、匏、土、革、木，古時稱為八音，係按其樂器製造或發音質料而分類。以科學推演，其產生時期亦可上溯至太古。先民步入新石器時代，知磨石為武器，其智慧當足以辨音響，「搏石拊石」和歌而舞，應為「石樂」磬之始形。狩獵之暇，撥弓弦自娛因而「絲樂」之琴瑟肇始。檢獸骨或截竹管吹之成聲，演成「竹樂」之簫笛。插葦管於瓜瓢吹吸發聲漸成「匏樂」之笙簧。進入銅器時代知能使用金屬製造器皿，一金樂」之鐘鐸自是隨之產生。團土為爐而冶金，漸燒成陶，壘缶等「土樂」成矣，檢枯枝相擊乃成「木樂」各器。此皆由於人類的音樂本能，並不限於中華民族的祖先。

中國在漢武帝（公元前一四〇年）時，始與外國交往，外國之音樂與樂器於彼時傳入中國。西之天竺，北之北狄等外來音樂統稱胡樂。固有之頌樂、雅樂等所用樂器統稱華夏舊器。隋唐以次琵琶、胡琴歷經改進使用日廣，民間各地普遍採用垂千餘年，歷經改進，出藍勝藍，早已成為大眾樂器；演至今日統稱中國樂器，有其歷史根據。

近百年來，西方音樂成為國際性之音樂，中國國樂欲保留其特有之樂器音色，不得不在製造上再求精進、演奏技巧及配器組織上有所變化，以期適應時代。現代化國樂團胡琴族中之中胡、大胡、低胡均為應運而生之新器，琵琶等裝有固定品位之彈絃樂器增加半音階品數、十一孔新笛以及本年三月間莊本立先生創製之半音階膜笛等，均可謂因配合現代國樂趨勢而改良之樂器。

國立臺灣藝術館於本年音樂節起，曾就所集之中國樂器圖片一百二十種，前後舉辦展覽會三次。承各方鼓勵編印專輯。嗣維也納合唱團，香港音樂界返國觀光團、美國波士頓交響樂團、韓國名指揮安益泰教授等前後來館參觀時均曾索取拓本，用特提前編印。祇因資料來源不一，歷代制定之尺度互有差異，各家之傳記亦有所出入，採摘歸納換算引證容有未盡。寧知有的樂器之製造法及演奏法均可寫成專書，本輯因篇幅所限僅能作其概略介紹。蓋編印之任務及目的亦止乎此。

本輯編排之次序，按使用方式約為吹奏、彈絃、擦絃、打擊等四類。間附之音域表係按其常用（有效）部份作圖，旨供作曲家參考。期譜成之曲，一般樂友及市上現售之樂器均能勝任，蓋亦本輯編印時附帶希望。

內容資料承中華國樂會，中華實驗國樂團協助徵集，黃體培先生整理編輯，梁在平先生校正。又編者寄語部份圖式及註釋係採自下列各書，併此向原編（著）者致謝。

(一) 中國樂器展覽會說明書

(二) 國樂概論

(三) 談國樂

(四) 現代國樂

(五) 中國舞蹈史

(六) 辭海（合訂本）

(七) Chinese Music

(八) 中國音樂史

(九) Chinese Music

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陳清泉著

四十三年 四月

四十四年 八月

四十六年 十二月

四十八年 九月

四十八年 十月

三十六年 三月

1884.

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# FOREWORD

Included in this booklet are more than eighty photographs and drawings of Chinese musical instruments, each one briefly described;— its inventor, the materials used, the dimensions, and in some instances, the notes and intervals it produces. Other pictures show the actual use of the instruments in individual or orchestral performances.

The contents of the book are arranged according to the method of playing these instruments: (1) blowing, as in *hsiao* or bamboo flute; (2) Plucking, as in *ch'in* or Chinese lyre; (3) using a bow, as in *nan hu* or two-string violin; and (4) beating, (percussion), as in the various kinds of *ku* or drums.

No attempt has been made to draw a demarcation between the instruments which are extinct and which are still in use now. Nevertheless, it is interesting to note that the eight kinds of materials used for making the musical instruments—metal, stone, silk, bamboo, gourd, earth, leather and wood—must have had something to do with the primitive life of the ancient Chinese. For instance, the rudimentary form of the silk string is traceable to moving fingers along the strings of a bow after the hunter's one-day trapping. The teapot-like gourd *sheng* or Chinese mouth organ, supposed to be the forerunner of the European accordion and the harmonica, might have come from sipping water from gourds by means of reeds.

With regard to the introduction of the musical instruments, legend attributes *ch'in*, *shē* (an improved form of *ch'in*), and *sheng* to Shen Nung, Fu Hsi, and Nu Wa, three alleged divine rulers of ancient China, all before the reign of the Emperor Huang Ti (2698 B.C.). This naturally is incredible, owing to the lack of relics as positive evidence. However, following the discovery of the *ts'e ch'ung* (single sonorous bell), *bien ch'ung* (bell chime), *bien ching* (stone chime) and other antiquities in Hohan Province in 1933 and 1936, it is a well-established theory that Chinese musical instruments with a skillful workmanship, together with a sound system of musical education, must have existed in the Chou Dynasty (1100-255 B.C.)

Then more than one century later, in the reign of Han Wu Ti (140-90 B.C.), *hu ch'in* or the Chinese violin and other musical instruments were imported to China. These innovations were at first distinguished from the Chinese native products. But in the succeeding dynasties, notably in Sui (A.D. 589-617) and Tang (A.D. 618-904), they were not only adopted but also developed, with the result that *hu ch'in* and others earned a proper place in the history of Chinese classic music.

In modern China, the impact of western music on Chinese art is increasing year by year. To maintain their great cultural heritage, Chinese musicians have been engaged in improving their traditional instruments. These include the *chung hu*, *ta hu* and *ti hu* in the violin field and the 11-hole *hsin ti* and the *pan yin chieh mo ti* in the flute field. The three *hu*'s, in the order mentioned, can be compared with the viola, violoncello and contrabass, while the two new flutes can produce chromatic scales. Besides, a half-tone fret has been added to the neck of the *p'i p'a*.

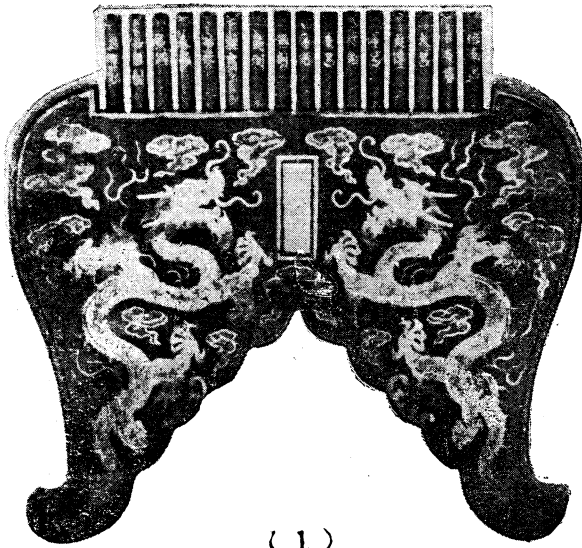
These are the features of the development of Chinese musical instruments. And this booklet presents to music-lovers a general survey of the selected musical instruments unique to China.

The publisher wishes to acknowledge his indebtedness to Messrs. Huang Ti-pei and Tsai-ping Liang of the Chinese Classical Music Society for their kind assistance in editing the materials in the present form.

# 排簫

據風俗通云，簫在舜時（公元前二二五五年）有之。排簫係編組竹製長短不一之律管而成，長者音低，短者音高，其音階係依「三分損益法」計算而來。爾雅載：「大簫廿三管謂之言，長尺四寸；小簫十六管謂之箛，長尺二寸」。

今常見之排簫多為十六管者，左右對稱之管各差半音，相隣之管各差一全音。編成一排，略似鳳翼，外鑲一無底木箱，漆以朱色及描金龍紋。其整體最長處約三十公分，最寬處約廿五公分，厚約四公分。每管內徑約為八公厘，管身無按音孔，僅能自頂端單吹一音，不能合樂，似係古時作校正其他樂器標準音之用。民國卅二年，政府核定排簫為象徵我國音樂徽記之圖案，取代前已沿用西洋樂徽里拉 (Lira) 位置。各管排列音位如圖 (2)。



( 1 )

No. 1.—The *P'ai-hsiao* (排簫) The Chinese were a long time in discovering that a tube pierced at different places may be made to produce as many sounds as there are holes by merely stopping these holes one after the other. In order to get the various sounds, the ancient Chinese used as many tubes as there were sounds; these tubes fastened together produced the *p'ai-hsiao*, or "Pandean pipes." The first instrument of this kind was made by the Emperor SHUN; it was a collection of 10 tubes, gradually decreasing in length and connected together in a rough manner by silk cord. In subsequent ages the number of tubes was increased to 12, then to 16, and even to 24; at present, the *p'ai-hsiao* has invariably 16 tubes. These tubes are arranged upon a frame more or less carved and ornamented; they correspond to the 12 *lus* and the first four *lus* of the grave series, and emit exactly the same notes as the bell and stone chimes,

The tubes which give the notes corresponding to the *yang lus*, or "positive tones," are grouped together on the left side of the instrument, the *yin lus*, or "negative tones," are arranged on the right side. The notes produced by the tubes, according to their position are the following:—

倍夷	倍無	黃	太	姑	蕤	夷	無	應	南	林	仲	夾	大	倍應	倍南
則	射	鐘	簇	洗	賓	則	射	鐘	呂	鐘	呂	鐘	呂	鐘	呂
pei	pei	Huang-chung	T'ai-t'u	Ku-hsi	Jui-pin	I-sse	Wu-i	Ying-chung	Nan-lu	Lin-chung	Chung-lu	Chia-chung	Tai-lu	pei Ying-chung	pei Nan-lu

( 2 )

The *p'ai-hsiao* is used only in ritual music. Two are employed at the Confucian ceremonies, placed respectively on the east and west sides of the hall. The music performed by them is exactly the same as that of the stone chime.

# 笙

據史記載，笙為女媧氏（公元前二八五二年）所創，古時笙斗係葫蘆所製，故屬八音中之「匏」類樂器。

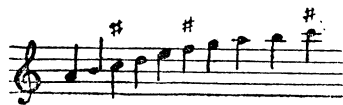
今制之笙，又名鳳笙，皆十七管，按其大小及設簧管數而分有南樂笙與北樂笙兩種。南樂笙較小而短，十七管中僅設十三簧，笙斗多用木製，發音纖細，盛行於南方各地。北樂笙較為粗大，笙斗多用銅製，十七管中設有十四簧，發音洪亮。另有全簧笙，則十七管均有簧，能轉五個調。歷史上尚有元朝之興隆笙，設九十枝管，奏時二人鼓風囊一人按律，有似西洋之手風琴。民元以後有創製方笙擬議，惜試製未竟，以上兩種笙今日均不復見。

笙為唯一能吹出和聲之管樂器，採用穿振簧，吹氣吸氣發音相同，學習不甚困難。現代化國樂團男性多採用十七管之全簧笙或十四簧之北樂笙，其音域如圖（4）。

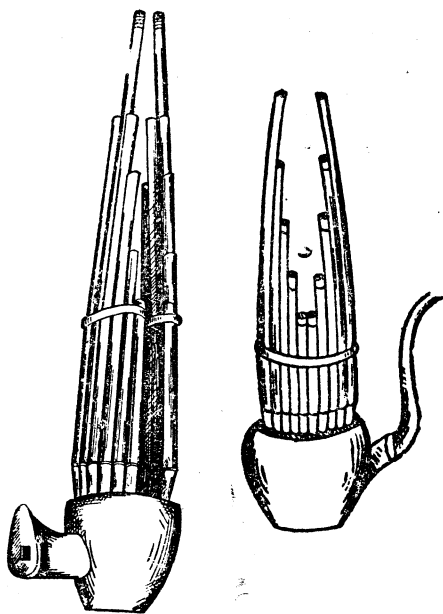


(3)

No. 3.—The *Sheng* (笙) is an instrument intended to symbolise the *feng-huang* (鳳凰) or Phoenix. The body or wind-chest is made of gourd, or simply of wood, and in its upper part tubes of different length are inserted. The length of the tubes does not, however, make the sounds graver. The tubes in the lower portion are furnished with reeds exactly like those of accordions, a little above the reeds the tubes are pierced so as to prevent their sounding, except by stopping the holes.



(4)



(5)





(6)



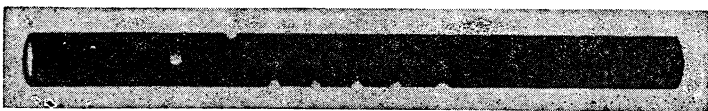
(7)



(8)

堽  
堽據傳為庖犧時（公元前二七〇〇年）所創。用陶土燒成，屬八音中之「土」類樂器。大如鵝卵者名雅堽，小如鷄子者名頌堽。常見者多作桃形，前有四孔，後有二孔，頂端另有一吹孔，發音嗚嗚然。據高子銘先生考證，臺北孔廟之頌堽恰為C調，其音域如圖（8）。

No. 6.—The *Hsuan* (堽) Chinese ocarina was invented by P'ao Hsi some 2,700 years before our era. It is a reddish-yellow one of baked clay or porcelain, pierce with seven holes: one at the apex to blow through, four in front, and two behind.



(9)

簫  
簫，竹製，與笛相似，惟較粗而短，無膜孔。傳為帝嚳時（公元前二四三五年）有僅所創。音孔數歷代記載各有不同，今日在孔廟看到之簫為六個按孔，一個吹孔，二個繩孔。長約卅五·五公分，內徑約二·五公分，音如悶笛。

No. 9.—The *Ch'ih* (簫) is a flute measuring about 35.5 cm. in length. It is now blown transversely, but was formerly blown in the middle. The number of holes varies between 5 and 10, and even more. It has gradually become obsolete, Its place being taken by simpler instruments.



(10)

簫，竹製直吹，據云黃帝時（公元前二六九七年）伶倫始創，漢武帝時（公元前一四〇年）丘仲曾加改良。唐時名爲尺八。今制之簫長約六十公分，內徑約一·八公分，前有五孔，後有一孔，吹孔在頂端，各孔全按吹之得D音者爲宜，音色柔美，可以獨奏。其常用音域如圖（12）。



(12)

簫



(11)

No. 10.—The *Hsiao* (簫) is said to have been invented by a certain 丘仲 (CHIU CHUNG) during the Han dynasty.

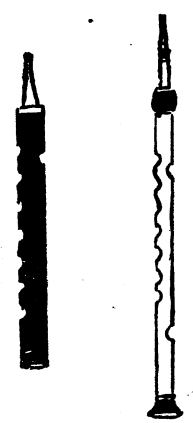
This flute is a tube of dark brown bamboo, measuring about 60 cm in length. It has five holes above, one below, and one at the end, through which it is played. Flutes of this kind were formerly made of copper, of jadestone, or of marble, such materials being thought less liable than wood to be affected by changes of temperature.



(14)

管，古時稱篳，據呂氏春秋載，亦爲帝嚳時僮所創。今制之管約有木管，與竹管之分，前有七孔，後有一孔，安蘆葦吹之，發音甚亮。木管盛行於北方，長約二十公分，內徑約一·六公分，葦管較短而小。竹管流行於閩粵各地，長約卅四公分，內徑約一·一公分。市上有售之福州竹管音域如圖（15）。

管

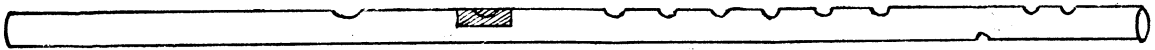


(13)



(15)

No. 13.—The *Kuan* (管) is a small tube about 34 cm long and 11 cm in diameter. It has seven holes above and two below. It is blown by means of a coarsely made reed inserted at the upper end. It is used mostly in funeral or marriage processions.



(16)

笛，古文作筴，據史記載係黃帝時伶倫始作。目前流行之六孔膜笛，據風俗通云係漢武帝時丘仲所改良。今制之笛，以崑笛為準，竹製有膜孔，長六十八公分，內徑約二公分，各孔全按吹之得A音者為宜。可以獨奏，在現代國樂團中佔重要地位，其音域如圖(18)。

笛



(17)



(18)

No. 16.—The *Ti* (笛) is the flute ordinarily met with in China. Full length 68 cm, 2 cm of diameter. It is a tube bound round with waxed silk and sometimes ornamented with tassels. It has eight holes: one to blow through, one covered with a thin reedy membrane, and six to be played upon by the fingers. There are, besides, several other holes at the end, but these are of no practical use except to attach the silk tassels and other ornaments.

短笛，俗名童子笛，竹製有膜孔，其形似笛之縮小，長四十八公分，內徑一·六公分。各孔全按時吹之為C，能奏極快之節奏，活潑清脆，現代國樂團偶亦採用。其常用音域如圖(20)。

短笛

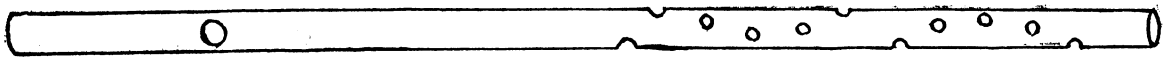


(20)



(19)

No. 19.—The *Tuan Ti* (短笛) Short Chinese flute. length 48 cm, tube diameter 16 mm. *Tuan Ti* is a flute like piccolo. Lowest register is C.



(2 1)

十一孔新笛，係丁燮林先生採用明朝朱載堉氏之平均十二律所創製。每孔一律計十一律，加全按孔時發音之一律，共十二律。兩手十指各司一孔外，左食指之指腰且須增司一孔，為管樂器中最難學習之一種。其音孔並不直線，順手指指尖部位而挖製。民國二十五年（公元一九三六年）經中央研究院在上海制定為國樂新器。有木質、竹質兩種，惟現市上所售者為竹質，長六十七公分，內徑二公分，能發三十四音，具有三組音域。無膜孔，音色柔美，略似西洋之長笛（Flute），音量雖較膜笛為小，但較簫為強，可以獨奏且為現代化國樂團所樂於採用。其音域如圖（23）

十一孔新笛



(2 2)

No. 21.—The *Hsin Ti* (新笛) or New eleven holes Chinese flute made either with bamboo or wood was invented by Ting Hsieh Ling. (丁燮林) This new instrument with eleven holes was officially recognized by Academia Sinica in Shanghai at 1936. Full length 67 cm and 2 cm of diameter. *Hsin Ti* produces three octaves complete chromatic scale. Tone quality like European flute.



(2 3)

半音階膜笛，係青年國樂家莊本立先生於四十八年在臺灣所創製，四十九年（公元一九六〇年）經中央標準局核定為國樂新器並准專利十年。笛身為塑膠質，長四十四公分，內徑一·八五公分，有膜孔一，吹孔一，按孔六，音色與音量一如膜笛。管中挖有音孔之一邊，裝有套管，遇奏半音時，右大指按控制套管活動之機鈕，則套管使所有音孔各掩蓋約一半，使其發出半音，多年來舊式六孔膜笛之吹奏半音及轉調困難乃獲解決。其音域如圖（25）。（與六孔膜笛同）。

半音階膜笛



(2 4)

No. 24.—The *Pan Yin Chieh Mo Ti* (半音階膜笛) It is a chromatic flute with membrane covered on one hole. This new chromatic flute was invented by Chuang Pen-Li and authorized by the National Bureau of Standards as new Chinese instrument. It is made by plastic tube, length 44 cm, diameter 1.85 cm, with 8 holes including one for blowing and other one for covering membrane. A double slidable tube inside of the main tube is placed, a key controls the movement. When a half tone is wanted just push the key then the holes of the main tube will be half covered and a half tone is produced.



(2 5)

哨呐與海笛

俗名金口角，係回族樂器，於古時採作軍樂。今世民間婚喪喜慶多採用吹奏，身為木製，刻成竹節狀，下接銅製喇叭口以擴音，頂裝銅管上安蘆哨，發音甚亮且厲，全長約五十公分。其音域如圖(28)。

另形狀構造相似，惟體較短較小者(長約三十公分)名為啣呐，(或名海笛)見圖(29)，發音更為尖銳，其音域如圖(30)。



(26)



(28)



(27)

No. 26—The *So-na* (哨呐) —known to foreigners as the “Chinese clarinet”  
The *so-na* consists of a wooden pipe fitted with a copper bell. It has seven holes on the upper side and one on the lower for the thumb. The mouthpiece is a small reed (like that of the European oboe) affixed to the upper end.

There are two varieties, differing only in size; the smaller kind is called 海笛 *Hai-ti*. (No. 29) The tunes played on this instrument at processions are in themselves very pretty and original.



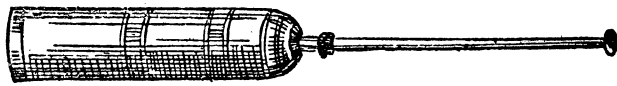
(29)



(30)

號筒

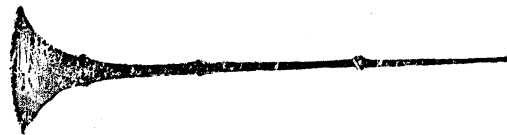
號筒，又稱大銅角。可伸縮，發音簡單而長，為古時行軍及今日迎神賽會、殯葬行列所用之樂器。如圖(31)



(31)

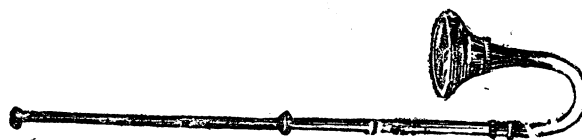
No. 31.—The *Hao-t'ung* (號筒) is a long cylindrical instrument having a sliding tube, which can be drawn out when wanted for use. There are two distinct varieties. The first comprises instruments of different sizes made of wood and covered on the outside with copper; they are exclusively used at funeral processions and emit only one long grave note, which is heard at a long distance. The second variety includes instruments made of copper only; they are of a less diameter than the first and are used for military purposes.

喇叭。札角  
喇叭又名馬吹，或稱小銅角。可伸縮，長約一〇〇公分，亦為古時行軍及開道所用樂器。如圖(32)。  
另形狀相似，而末端捲曲向上者，名為札角。如圖(33)。



(32)

No. 32.—The *La-pa* (喇叭) is a long trumpet with a sliding tube similar to the *hao-t'ung*. It gives four notes, C, G, C, E, and is properly a military instrument. Another variety of the *la-pa* is crooked, and therefore is called 札角 (*cha-chiao* No. 33); it is of various sizes and is used at wedding processions.

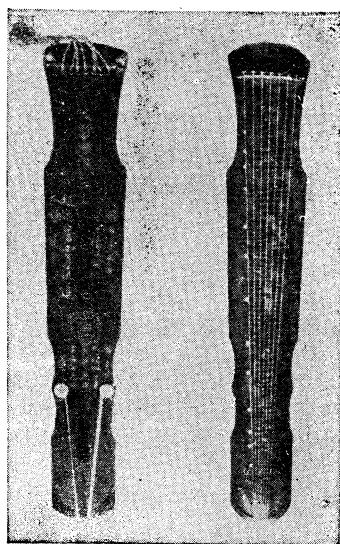


(33)

根據爾雅疏引琴操記載，琴係伏羲（公元前二八五二年）所創製，初僅五絃，合宮、商、角、徵、羽（即今之 Do, Re, Mi, Sol, La）五音。周時文王、武王（公元前一二二二年）各增一絃，成爲七絃琴，但所增之絃係多了 Sol, La 兩個低音，仍爲五聲音階。此外歷史上尙有九絃中琴與廿七絃大琴之說，惟一般之謂「琴」，係指七絃琴而言。

琴，精選桐木製造，據廣雅載：長三尺六寸六分，廣六寸（如以今尺度之則全長一二六、五公分，最寬之面爲二〇·五公分。）上架粗細不一之絃七根，琴面近外沿處有十三個徽。琴體各部均有專名，演奏法甚繁，且有專譜及專用指法符號，音域計有四組，發音渾樸蒼厚，我國現存之琴譜頗多，爲追尋古典國樂重要資料之一。

琴



( 34 )

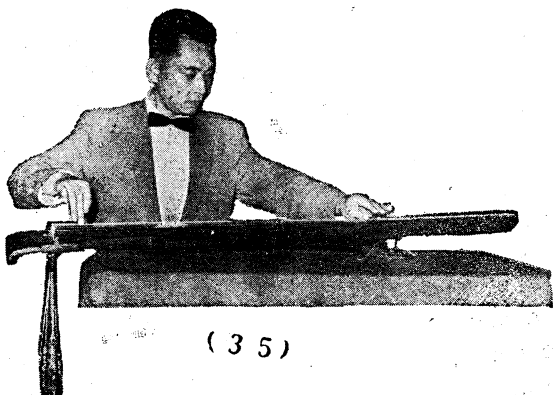
No. 34—The *Ch'in* (琴) is one of the most ancient instruments, and certainly the most poetical of all. It was invented by Fu Hsi, (2582 B. C.) who called it *ch'in*, referring to restriction, prohibition, because its influence checks the evil passions, rectifies the heart, and guides the actions of the body. The dimensions, the number of strings, the form, and whatever is connected with this instrument had their principles in Nature. Thus, the *ch'in* measured 3.66 feet or  $\frac{366}{10}$  of an inch, because the year contains a maximum of 366 days; the upper part was made round, to represent the firmament; the bottom was flat, to represent the ground; and the 13 studs stood for the 12 moons and the intercalary moon.

The *ch'in* of the present day retains the primary form. These are seven strings which pass over a bridge near the wide end, and then through the board, and are tightened by nuts below; at the smaller end they are tightened on two pegs.

The 13 studs should be of metal, the board of t'ung (桐) wood and the nuts of marble or jadestone; and the silk should come from some particular place.

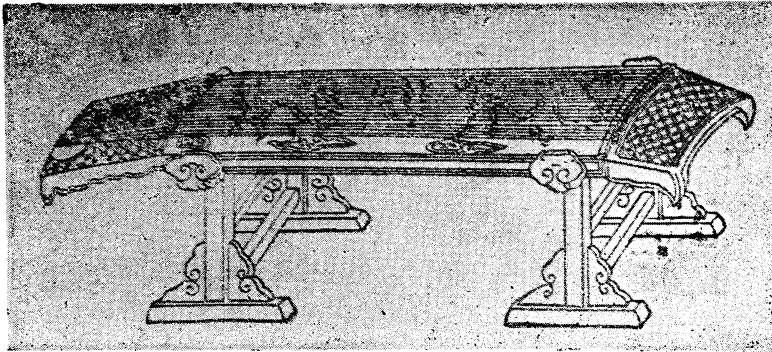
The *ch'in* is used for what is called elegant music (雅樂) It is supposed to be the special instrument of the educated classes; and yet, it is somewhat neglected by the present generation, being scarcely met with except at imperial ceremonies. This may be attributed to the fact that playing on the *ch'in* is surrounded with difficulties enough to deter the most willing learners. The notation, for instance, is quite peculiar: each note being a compound of several simple characters, so arranged as to convey at once to the eye of the performer the note to be played, the string to be chosen, the finger to be used, etc.

There are numerous Chin notations books still kept in good conditions in Taiwan which are available to those who like to take research works on the problems of Chinese classical music.



( 35 )

瑟



(36)



(37)

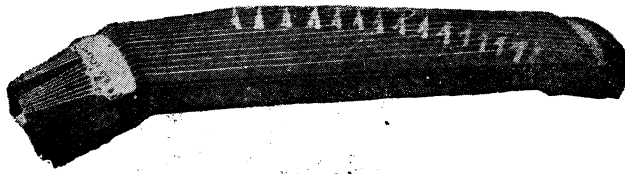
根據世本載，瑟係庖犧（即伏羲公元前二八五二年）所作，五十絃。黃帝時改為廿五絃。每絃一律，按宮，商，角，徵，羽五聲音階排列。計有五組音域。發音洪亮。瑟係桐木製造，禮書通故載「雅瑟」長八尺一寸，廣一尺八寸，二十三絃或十九絃。「頌瑟」長七尺二寸，廣一尺八寸，二十五絃。因其體積較大，移動不易，使用範圍漸被箏所取代。目前吾人僅能在祭孔大典時見到。其音域如圖（37）。

No. 36—The *Sê* (瑟) is said to have been invented by Pao Hsi (2852 B. C.) (庖犧) and to have had originally 50 strings. It is recorded that “when a certain Miss Su (素女) was one day performing on the *sê* in the presence of the Emperor Huang Ti (2697 B. C.) (黃帝) the strains of the instrument impressed him so deeply and rendered him so sorrowful that he forthwith ordered the number of strings to be reduced by one-half”.

The *sê* is made on the principle of the *ch'in*, and, like that instrument, has been made the subject of numerous allegorical comparisons. The number of strings has varied, having been sometimes 27 or 25, sometimes 19 or 23; but the *sê* now in use has 25 strings. Each string is elevated on a movable bridge. These bridges represent the five colours: the first five are blue, the next red, the five in the middle are yellow, and then come five white, and lastly five black.



箏

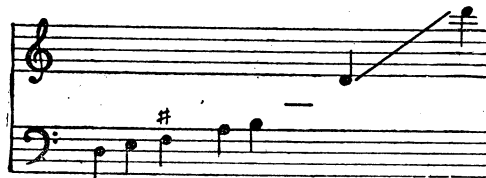


(38)

No. 38.—The *Cheng* (箏) or the Chinese zither, of *Se* family. It has 16 strings stretched over 16 frets on an oblong wooden sound box. It has been said to have originated in the Ch'in (秦) Dynasty (221-206 B. C.) The *Cheng* is measured 180 cm long and 30 cm wide on 13 silk stringed body and 120 cm long with 18 cm wide on 16 steel stringed body. It sounds like the combination of harp, guitar and piano. The *cheng* which used today in Japan is called "Koto". South Korea and Vietnam were all originated from China. Recently, the instrument is vigorously revived by Prof. Tsai-Ping Liang. A promising period of the instrument is thus looked forward to.

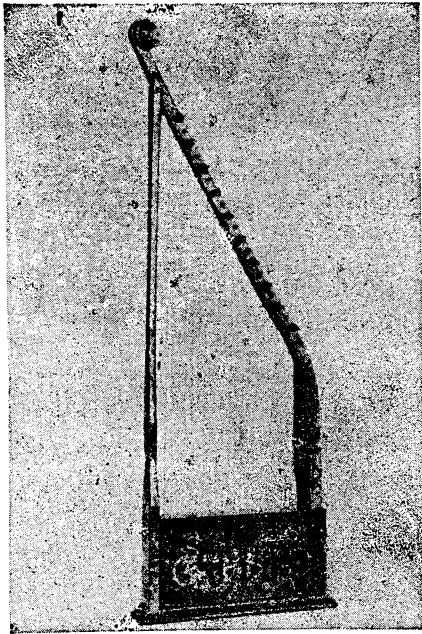


(39)



(40)

箏是秦時(公元前二二一年)由瑟演變而來,又名「小瑟」。  
 今制之箏計有兩種,一為長達一八〇公分,寬約三十公分,琴面弧度較小之十三絃絲絃箏,如圖(38)。一為長僅一二〇公分寬約十八公分,琴面弧度較大之十六絃鋼絲箏,如圖(39)。前者發音渾厚樸實,後者鏗鏘悅耳。均採桐木製造。  
 箏之音的進行,雖按宮,商,角,徵,羽五聲音階,惟遇奏變宮(Si)或變徵(F#)時,將羽(La)絃或角(Mi)絃稍重按之則得。故十六絃之箏,仍有三組音域。  
 我國目下箏樂,由於梁在平教授等之研究提倡,愛好者日衆,已有專用指法及專譜,可以獨奏並參加合奏,學習不甚困難。其音域如圖(40)。



(4 1)

箜篌，根據史記載，係漢武帝時命其樂人侯調所作，二十五絃，名箜篌瑟，似即古之臥箜篌。近代之箜篌則採豎彈者，頗似西洋之豎琴 (Harp) 有廿二絃。似係外方傳入者。

No. 41—The *Kong Ho* (箜篌) “Chinese harp” was invented by Ho Tiao (侯調) in 140 BC. Formerly *Kong Ho* was played with 25 strings, now only 22 strings.

今制之琵琶，以堅木爲體，梧桐板爲面，全長一〇〇公分，而最寬處爲卅三公分，琴頸有四相十三品及六相十八品兩種，皆設四絃，最外較細之絃名子絃，次名中絃，再次名老絃，近身最粗之絃名纏絃。其空絃定音依次爲 A. E. D. A.

琵琶有三組音域，可供獨奏及合奏，首甚爲悅耳，在樂隊中佔有重要地位，它有專用之指法及樂譜，學習頗難，其音域如圖



(4 3)

No. 42—The *P'i-P'a* (琵琶) or “balloon guitar,” is about 110 cm long, and 33 cm wide in the body. It has four silk strings which are said to represent the four seasons. This and some other allegories enforce the belief that the *p'i-p'a* has a more or less ancient origin, but the date of its introduction is not known with certainty.

根據崔豹古今注云，琵琶係漢武帝 (公元前一四〇年) 時自西域 (今之新疆省地) 傳入。初用木撥彈奏，品位較少，唐初 (公元六一八至七一三年) 裴洛兒始改用手指彈奏。

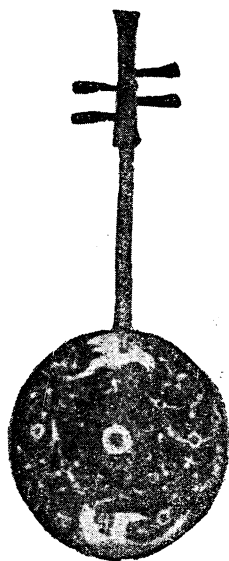
琵琶



(4 2)

# 阮 咸

根據三河圖會記載，阮係晉（公元二六五至三一三年）之阮咸所創，故名，簡稱阮。初似銅器。如圖（44）。今制之阮，堅木為體，琴胴形圓似月，徑約卅五公分，兩面均粘桐板，頸甚長，上有十七品，全長達一一〇公分。琴面設四絃，外（第一、二）絃同定A·音，內（第三、四）絃同定D·音，為最低音之彈絃樂器，發音雅亮。惟為謀調絃方便，應用上各去其一絃。其有效音域如圖（46）。



(44)



(45)

No. 44—The *Ren* (阮) It is a plucked string instrument made of hard wood. Ran was invented in Ch'in dynasty by Ran Hsien. (阮咸) There are 17 frets on the neck, with four strings two are tuned in A and the other two are tuned in D. Whole length of the instrument is 110 cm.

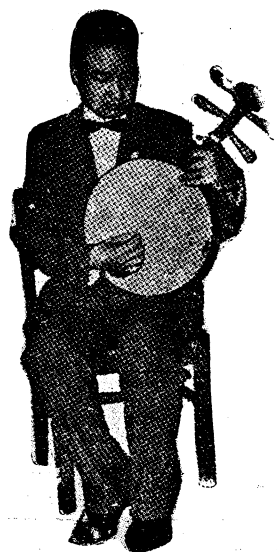


(46)

月琴據傳亦為晉竹林七賢之一阮咸所造，與阮相似，琴面較大，其形似月，琴頸較短，琴體較扁，上設十品，為高音之彈絃樂器，較阮低兩個八度。以小撥子彈奏，琤琮悅耳，學習甚易，仕女多習之。外琴定音為A，內絃定音為D。其音域如圖（48）。

# 月 琴

No. 47—The *Yuch-ch'in* (月琴) or "moon guitar," is so called because the shape of the body resembles a full moon; there is a variety, however, the body of which is octagonal. The neck, which is short, is furnished with frets for the convenience of the player. The four strings are tuned in pairs at the distance of a fifth. In some places the strings are made of copper instead of silk. This instrument is used, together with the *p'i-p'a* or *san-hsien*, to accompany ballads, songs, etc.



(47)

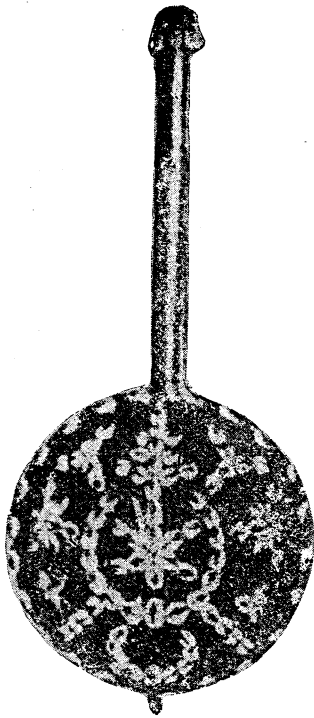


(48)

### 三絃

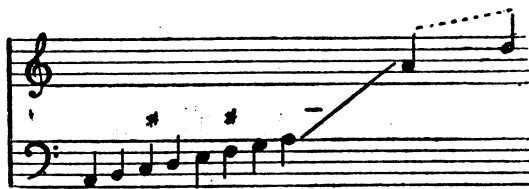
根據西河詞話載，三絃始於秦朝，初名鞞（見圖49），由三代之鞞鼓轉變而成，在唐朝是士人所習尚的樂器

今制之三絃（見圖50），係以堅木爲體，琴胴兩面均蒙以蟒蛇皮，琴頸平滑無品，可以自由取音，上設絲絃三根，以指甲或小撥子彈奏。盛行於北方者名爲北絃，長約一〇五公分，琴面徑約十八公分。盛行於南方者名爲南絃，長約七五公分，琴面徑約十二公分，發音較尖。現代國樂隊多採用北絃，其定音爲A、D、A。常用音域如圖（51）。



(49)

No. 49—The *San-hsien* (三絃) “or three-stringed guitar,” has a shallow cylindrical body, the top and bottom of which are covered with snake skin. It has a long neck (without frets) and three strings, which are tuned sometimes D. A. D. but more frequently A. D. A. It is sometimes played with the finger, but oftener with a plectrum. It is one of the favourite instruments of street ballad-singers.



(51)



(50)

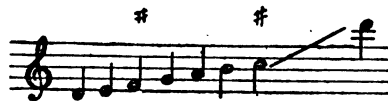
## 雙琴與秦琴

雙琴，據云係由古之秦漢子變形而來，琴面常作八角形或花瓣形，徑約二十五公分，堅木爲胴，兩面均粘以桐板，琴頸有十二品，琴絃有四，外（第一、二）絃同定A音，內（第三、四）絃同定D音，應用時爲謀調絃方便，各去其一，其常用音域如圖（53）。

另有型式相若，上設三絃者，名爲秦琴，即古之秦漢子之意。其定音爲A、D、A。音域如圖（54）。



(52)



(53)

No. 52—The *Shuang-ch'in* (双琴) is an octagonal guitar with a long neck furnished with frets. It is made of hard wood, and has four strings tuned in pairs, with the distance of a fifth between the two pairs. It is plectrum; but it is now rarely used, the cost placing it beyond the reach of ordinary musicians.



(54)

## 楊琴

楊琴或名洋琴，據云約於明朝（公元一三六八—一六四四年）自中東傳入我國，俗名蝴蝶琴。豎木為共鳴箱，上蓋桐板。設兩橋，上架若干之金屬絃。地方樂團採用者多為七行至九行之小楊琴，現代國樂團則多採用具有三組音域，半音齊全之十四行大楊琴，長約一〇〇公分，寬約四十五公分，高約十公分。每行有鋼絲絃四根，以裹皮之竹片摘擊，音甚鏗鏘悅耳，可供獨奏及合奏，且可打出和聲，學習不甚困難，其音域如圖（56）



(55)

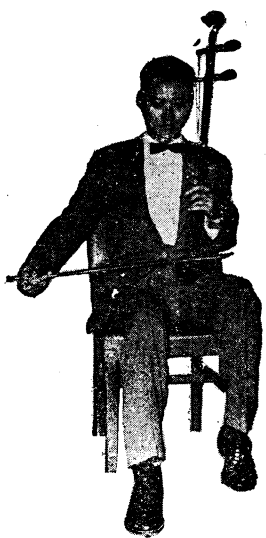
No. 55—The *Yang-ch'in* (楊琴) or “foreign harpsichord,” has the form of a rectangular, trapezoidal, or oval box, about 100 cm long, 45 cm broad, and 10 cm high. When the lid which covers and protects the sounding-board is removed, one finds a range of fine metallic wires, disposed in sets of two, three, or four to each note, decreasing in length from the base upward, and fastened at both sides by nails. On the sounding-board there are two bridges, perforated with seven or eight holes each, over and under which the strings are stretched; and the strings which pass over the first bridge have to pass through the opposite holes of the second bridge, and *vice versa*. There are ordinarily 56 sets of strings, 14 passing over the right bridge and through the holes of the left bridge, and 14 passing over the left bridge and through the holes of the right bridge. This arrangement consequently affords four series of notes, one on each side of each bridge; but only three series are in general use. The series of notes given by the strings on the right side of the right bridge is not used.



(56)

## 南胡

胡琴傳至清朝（十七世紀中葉），型式有  
多種，其中流行於南方各地，琴體以堅木製造  
，琴桿較京胡為長（約八十五公分），琴胴較  
京胡為大（多作正八角形，相對兩邊之徑約八  
公分）者名為南胡。民元以前，南胡用指僅守  
於一把位，用音亦不過九數。民元以後經周少  
梅、劉天華諸氏，逐漸在結構及指法弓法上改  
進，並採用西洋小提琴之演奏技巧，音色益為  
悠美，音域亦增至三組，在國樂中之地位，為  
之提高。不僅可供獨奏，且在現代化國樂團中  
，相當於西洋交響樂團之小提琴位置，演奏大  
合奏曲時亦分為甲乙兩部。南胡外絃固定為A  
內絃為D，其常用音域如圖（58）。



(57)



(58)

No. 57—The *Nan Hu* (南胡) or two stringed violin, became very popular all over China since 17 century. What people used in the southern part of China called *Nan Hu*. Body of the instrument is made of hard wood instead of bamboo. Length of the arm is about 85 cm.

中胡之外形及構造材料與南胡相似，惟琴桿較長（約九十二公分），琴胴較大，常作正六角形，其兩邊相對之直徑約十一公分，琴胴或亦作正八角形。係民國二十六年中央廣播電臺音樂組創定。在現代化國樂團中有似西洋中提琴位置，發音空曠豪放，較南胡低四度。外絃固定為E，內絃固定為A。其常用音域如圖（60）。

## 中胡

No. 59—The *Chung Hu* (中胡) Body and arm are larger than *Nan Hu*, It is second one in *Hu Ch'in* family, equivalent the viola in violin family. Arm long 92 cm. and bodys diameter 11 cm.



(59)



(60)

# 大胡

大胡，琴體以堅木製作，長約一〇五公分。琴胴呈柿形兩面均粘以桐板，琴面最寬之直徑約廿二公分，亦係民國廿六年中央廣播電臺所創製。在現代國樂團中有似大提琴位置，定絃較南胡低八度。其常用音域如圖(62)。



(6 1)

No. 61—The *Ta Hu* (大胡) Third in *Hu Ch'in* family was invented only in 1937 by artist of the China Central Broadcasting Station. It is used in modern Chinese orchestra as violoncello. Whole length 105 cm.



(6 2)

低胡為現有國樂擦絃樂器中之最低音樂器，構造材料與大胡同，惟不用千斤，且有按音板，琴桿有似大提琴，全長約一六〇公分，琴面最寬處之直徑為五十五公分，琴胴厚廿五公分，亦可彈奏，在現代化國樂團中有似西洋低音大提琴位置，其定絃較南胡低兩個八度，音域如圖(64)。

# 低胡



No. 63—The *Ti Hu* (低胡) The biggest in *Hu Ch'in* family equivalent the contrabass in the orchestra. It is played with a bow some times also with pizzicato. The whole length is 160 cm.



(6 4)

(6 3)



# 粵胡

粵胡本為演奏廣東音樂專用之樂器，故名。外形與南胡相似，惟較小較短而已。全長約八十公分，琴胴作圓形，直徑約七公分，外絃採用鋼絲絃，內絃仍為絲質絃，定音較中胡高八度，發音較南胡尖銳，現代國樂團亦常採用，其常用音域如圖(66)。



(65)

No. 65—The *Yu Hu* (粵胡) Same form like *Nau Hu* but smaller. It is used only in Cantonese music. The tone quality is very sharp because one of the string is using violin E steel string.



(66)

椰胡以堅木為桿，椰壳為胴故名，其琴桿長短，椰壳大小以及配用之絃，各地略有不同。本輯所介紹者全長約為一〇〇公分，椰壳之面徑為十五公分，厚九公分。所用之絃為中絃與老絃，定音外絃為E內絃為A與中胡同，一馬「用硬紙捲成，發音嗚啞但頗蓬鬆圓滑。常用音域如圖(68)。

# 椰胡



(67)

No 67—The *Yeh Hu* (椰胡) Two-string Hu Ch'in family instrument with the body of half cocoanut shell. *Yeh Hu* has different size.

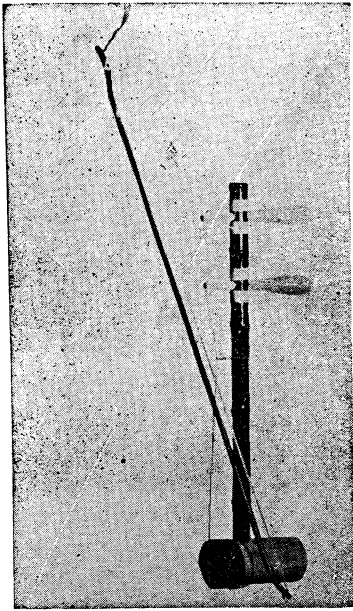


(68)

# 京胡

京胡屬於胡琴類，胡琴傳為漢武帝（公元前一四〇年）時自西域傳入之樂器，元朝（公元一二七七年）雜劇肇始，胡琴即為其伴奏樂器，清中葉（十八世紀）皮簧盛行北方被名為京劇後，其伴奏之主要胡琴名為京胡，有別於二胡及四胡。

京胡係竹桿竹筒，蒙以蛇皮，出音甚為響亮尖銳。惟因琴桿甚短，用指不過九音，現代國樂團未予採用。



(69)

No. 69—The *Ching Hu* (京胡) *Hu Ch'in* used in Peking for accompany Peking opera called *Chin Hu*. It is a Chinese violin has a hollow cylindrical body one end of which is covered with snake skin, while the other is left open. The body is pierced by a long arm, to which attached two silk strings. The bow passes between the strings. *Chin Hu* is made of bamboo.

四絃胡，簡稱四胡，亦屬胡琴類，為北方之大鼓書及南方之越劇等地方樂曲常用之伴奏樂器。其沿革、構造材料與南胡相同，此胡雖設四絃，第一、三絃同為A音，第二、四絃同為D音，對於音域並未增加。將其弓之毛分作兩道，分別介於上述兩組絃中拉奏，效能等於兩把二胡同時拉奏而已。又因裝絃問題，其有效音域僅有十一個音，且遇有其中任何一絃鬆脫，則音不協和。故現代化國樂團未予採用。其有效音域如圖(71)。

# 四絃胡

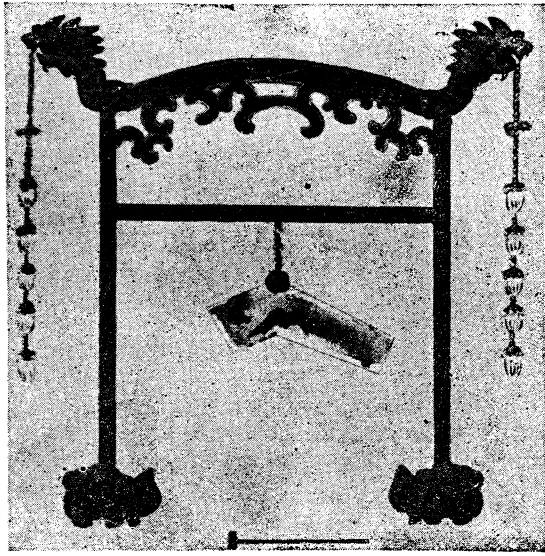


(70)

No. 70—The *Se Hsien Hu* (四絃胡) Also called *Se Hu*. Same construction as *Nan Hu* but with four strings. These strings are tuned, the first and third in A, the second fourth in D. The bow passes between the strings, so that it requires close attention to play without touching the wrong string.



(71)

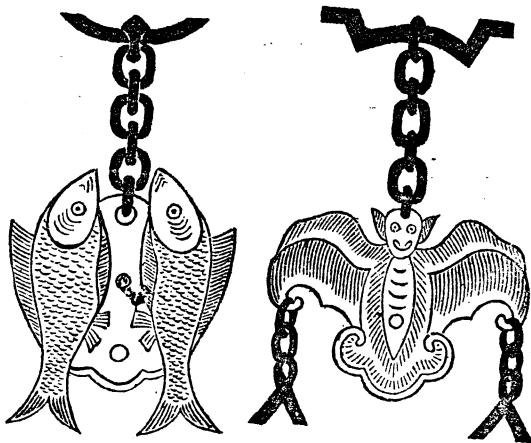


(72)

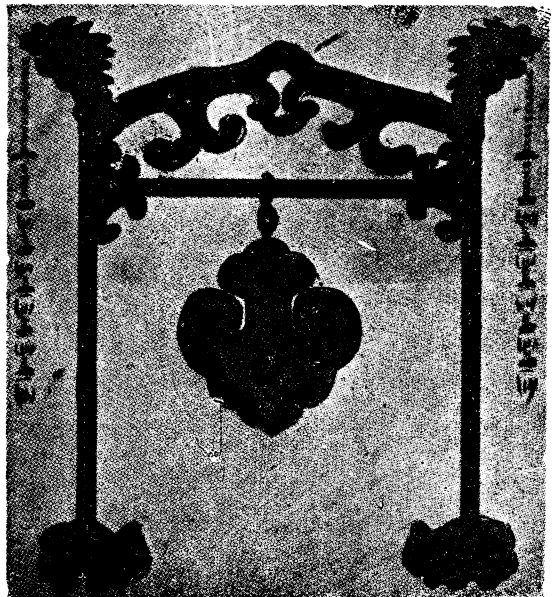
特磬

磬爲石製，傳爲帝嚳時倅所創，爲古時八音之「石」類樂器。今制之特磬如圖(72)。係採徐州附近之靈璧石礫製，較長之一邊名爲倅，長約六十五公分，較短之一邊名爲句，長約五十公分，厚約五公分。短邊之下部名爲鼓，爲敲擊之處。每磬獨懸於一架。圖(73)、(74)名歌磬，今有改用金屬鑄造者。

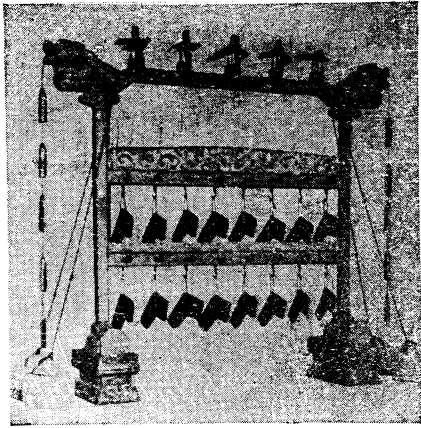
No. 72—The *Te-ch'ing* (特磬), or "single sonorous stone," is a stone cut in the shape of a carpenter's square, and supposed to render the sound of the triple octave below *huang-chung*. The side which is to be struck by the performer's hammer measures 65 cm, the other side is only 50 cm in length. It is suspended in a frame by means of a string passing through a hole bored at the apex. It is also known under the name of 離磬 (*li-ch'ing*), perhaps on account of its sound being so deep. Its place at the Confucian ceremonies is outside the temple, on the left side "Moon Terrace." Its use is to give a single note at the end of each *verse*, in order to "receive the sound" Formerly the stone was cut in a fantastical form, representing some monstrous animal, fish, dragon, or the like. According to the "Illustrated Description of the Instruments of the present Dynasty" there are 12 *Te-ch'ing*, one corresponding to each of the *lüs*; and they are employed only at the religious and court ceremonies.



(74)



(73)



編磬

編磬中每磬之外形及其製造材料與特磬同，惟較小。十六磬共懸一架每磬一律，謂之一虞，傳為堯時（公元前二三五六）叔所制。有每磬大小差等，大者聲低，小者聲高及每磬大小相同以體之厚薄定其音之高低者兩種。每磬大小相同之磬長邊四十九公分，短邊卅三分。其音位如圖（76）。

(75)

Upper Column.	<p>無 15. 夷 13. 蕤 11. 姑 9. 太 7. 黃 5. 倍無 3. 倍夷 1.</p> <p>Wu. I. Jui. Ku. Tai. Huang. Pei-wu. Pei-i.</p>	The notes of the upper column correspond to the yang liis.
Lower Column.	<p>應 16. 南 14. 林 12. 仲 10. 夾 8. 大 6. 倍應 4. 倍南 2.</p> <p>Ying. Nan. Lin. Chung. Chia. Ta. Pei-ying. Pei-nan</p>	The notes of the lower column correspond to the yin liis.

(76)

No.75—The *Pien-ch'ing* (編磬) or “stone-chime,” is an instrument composed of 16 stones suspended on a frame. The stones, which measure 49 cm one way and 33 cm the other, are all of equal length and breadth, and differ only in thickness; the thicker the stone the deeper the sound.

The *pien-ch'ing* is exclusively used in court and religious ceremonies; it would be considered a profanation to use it elsewhere. There is one of these instruments in each Confucian temple and imperial place of worship in the Empire, and no doubt the imperial palaces and residences contain many of the best kind; but it is impossible to find a complete *pien-ch'ing* for sale, although separate stones may be found.

At the Confucian temple this instrument is placed on the west side of the temple, on a line with the *Pe-ch'ing*. Its special part is to give one sound at the end of each word, in order to “receive the sound” and transmit it to the next word.

It is not known to whom and to what dynasty the invention of the *pien-ch'ing* may be attributed, but there is no doubt that it is one of the most ancient instruments.



(77)

鑪鐘

鐘爲古時八音中之「金」類樂器，傳亦爲帝嚳時有僮所創製。舜時盛行製鐘，大者謂之鑪，高達一六〇公分，口徑約八十公分爲廟堂祭祀用器，音量甚洪。圖(77)爲周時製，(78)爲明時製。

No. 77—The *Yung-chung* (鑪鐘), or “large bell,” ought to be 160 cm in height and have a mouth of 80 cm diameter, gradually decreasing towards the apex. The Chinese say that was made to correspond with a very big drum; the one was not to be used without the other, for the drum had to give the signal to begin and the bell had to announce the end of the hymn at the ceremonies. Though now no longer in use, both instruments are still to be seen. At the temple of CONFUCIUS, in the same court in which stands the hall are two small pagodas, one to the east, the other to the west of the hall and in front of it. In the east pagoda, to which access is gained by ascending a few steps, hangs a big drum, somewhat damaged by its exposure in the open air; and in the other pagoda on the west the large bell is suspended.



(78)



(79)

鐸  
鐸屬鐘類，爲古之軍中樂器如大鈴。今之寺廟僧道所用者名爲鈴，全長（連柄）廿四公分，口徑約九公分。鐘口向下，用時手搖其柄，鈴舌則往復撞擊發聲。

No. 80—The *To* (鐸) or “tongued bell,” is an ordinary bell having either a metal or a wooden tongue, and a handle at the apex. Formerly there were four different kinds of tongued bells in use in the army.

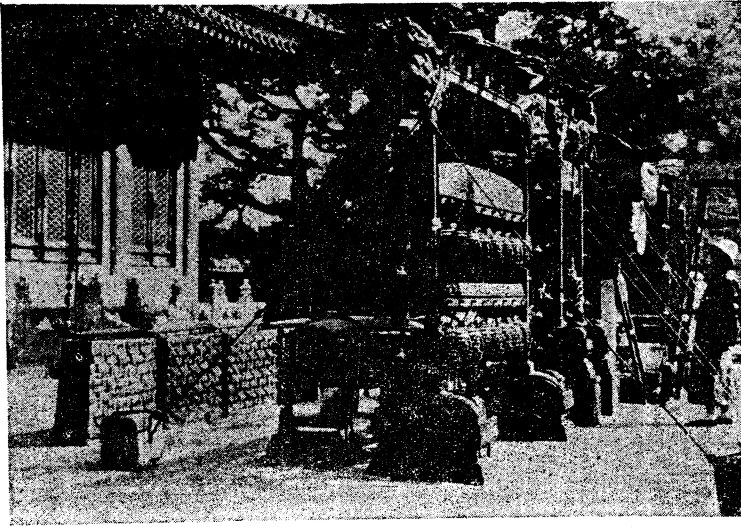
At present the *to* is used only by bonzes to mark the rhythm of their prayers.



(80)

鑄鐘  
鑄鐘較鑄鐘略小，又名特鐘，據載有高三尺六寸，口徑二·二五尺者。在祭孔時。與特磬相配而用。在臺北市南海路國立歷史博物館珍藏之特鐘（見圖79）高一·三公分，重三九〇兩。

No. 79—The *Po-chung* (鑄鐘) is a single bell suspended upon a frame, and corresponding to the *t'ch'ing*, or “single sonorous stone.” It measures 3.6 feet in length, and has a diameter of 2.25 feet which gradually decreases towards the top. The measurements here given correspond to the *huang-chung*, or first bell. It has to give one note at the beginning of each verse, in order to “manifest the sound” —in other words, to give the pitch it is struck with a wooden hammer. It was called *sung-chung* during the middle ages.



## 編鐘

據呂氏春秋載：「黃帝命伶倫鑄十二鐘和五音」。周朝以後編鐘均為雅樂及頌樂之主要樂器。惟其制歷朝互有異同，鐘數最多者有廿四口，最少者僅八口。清朝編鐘以十六鐘共懸一架，謂之一簾。每鐘一律，大小相同而以其鐘壁厚薄定其音之高低。與編磬合稱一肆，均可和樂演奏，其音位與編磬相同如圖(84)。

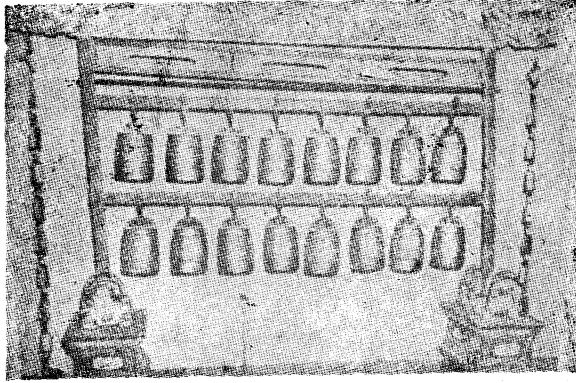
(81)

No. 81—The *Pien-chung* (編鐘), or “bell-chime,” is an instrument composed of 16 bells suspended upon a frame. It is made on the same principle as the *pien-ch'ing*, or “stone-chime,” and, like that instrument, is of the greatest antiquity. The Yellow Emperor HUANG T1 (B.C. 2697) —used a chime composed of 12 bells, agreeing with the *lüs*; the Chou dynasty (B.C. 1100 to 255) had chimes of six and nine bells, decreasing gradually in size and diameter; of these, however, nothing remains but a meagre description in the native records. In subsequent ages various kinds of chimes were made: some were composed of 24 bells, corresponding to two series of *lüs*; others of 16 bells, corresponding to the 12 *lüs*; plus the first four *lüs* of the acute series; others of 14 bells, corresponding to the notes of the diatonic scale, C,D,E, etc. ; in a word, this instrument underwent the same changes as the “stone-chime.”

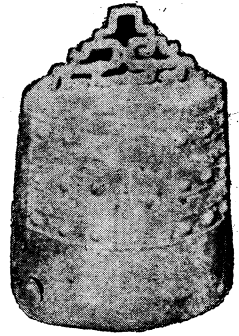
Anciently the bells were quadrate ; under the T'ang (A.D. 600, and after) and subsequent dynasties the bells were oval and were adorned with *mammae* in groups of nine each ; the mouth was crescent-shaped, and they were hung obliquely. The Sung (A.D. 1000) provided each bell with a knob, by which it could be hung in a vertical position. But K'ANG Hsi, of the present dynasty, abolished the ancient forms and adopted round bells, ornamented with the *pa-kua* symbols, and having on the top a dragon, by which they could be suspended. Chimes were made of 16 bells, all of the same size and diameter, but differing in thickness and weight. These are the chimes now in use.

The music, the pitch, the notation, etc., of the *pien-chung* is exactly the same as that of the “stone-chime;” and, like this latter instrument, it is exclusively devoted to court and religious ceremonies. Wherever a stone-chime is used, a bell-chime is requisite; they are necessary one to the other: the bell-chime sounds and the stone-chime answers.

At the Confucian temple the *pien-chung* is placed on the east side on a line with the *po-chung*. It gives one note at the beginning of each word, to intimate the pitch to the singers.



(82) 圖 置 位 鐘 編

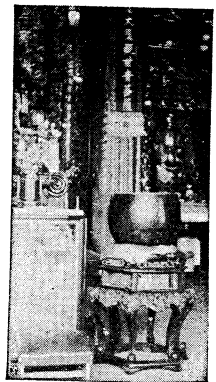


(83)



(84)

No. 86—The *Shun* (鐃) This is the literary appellation of an instrument shaped like a mortar. The popular name is 磬 (*ch'ing*). It is struck with a wooden hammer, and when used at the religious ceremonies is put into a kind of silk purse richly ornamented with costly fish scales. It ought to measure 10 cm in height and 12 cm in diameter.



(85)

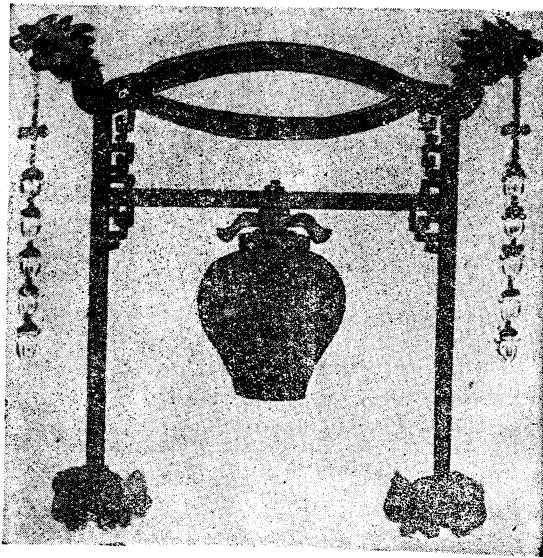


(86)

鐃亦屬鐘類，又稱磬。大者口徑達七十公分，（見圖85），為僧道常用之法器，其音淳厚韻甚長。現代化國樂團採用者，口徑僅為十二至十八公分如圖（86）。

鐃





(87)

head, a forked tail, and an upward nose; in rainy weather it hangs from the branches of trees by putting the two ends of its tail into its nostrils, and so forming a circle. From it was derived the Chinese idea of suspending their bells.

The *wei-shun* was used mostly for the ceremonies at the Temple of Ancestors, where it corresponded to some kind of drum which has also disappeared.

It has been said that this instrument "is simply a large bell, with small round bells suspended in it to act as a tongue, the sound thereby produced being exceedingly shrill".

蝮 鐘  
蝮 鐘，傳為周朝（公元前一二二二年）樂器。按辭海註「蝮」為長尾猿，鼻露向上，尾長達五尺，遇雨時則自懸於樹以尾塞鼻。本器之鼻，作蝮伏狀故名。體為銅製，壁甚薄，高約四十公分，最寬部份直徑卅三·五公分，口徑廿一公分。據御覽樂部云，器中懸有銅鈴舌，作樂時振而鳴之，音色與鼓相似。

No. 87—The *Wei-shun* (蝮鐘) is a very ancient bell of the Chou dynasty. It had the shape of a balloon, and was suspended singly upon a frame. It was 40 cm in height; the upper diameter was 33.5 cm and the lower diameter measured 21 cm. It was suspended by a knob shaped somewhat like the 蝮 (*wei*), monkey. This animal is said to have a yellowish grey

方 響  
方響係選長方形之金屬板十六片（明朝制），分兩行共懸於一架，每片一音以其板之厚薄定其音之高低，制與編鐘同。據云始自商代，盛行於唐之燕樂，曾作編磬之代用。用小槌敲擊發聲，有似今之管樂隊中鋼板琴（Celesta）



(88)

No. 88—The *Fang Shiang* (方響) Sixteen pieces of steel plates hanging on a frame and playing with a small wooden hammer. This instrument is similar to the european celesta.



(89)



(90)

錚  
據說又云「錚」即「鉦」，形圓如銅鑼。如圖(89)。本輯所介紹者為小錚如圖(90)，直徑僅十公分，錚邊有三孔，位如鼎足，穿繩張於銅架，下接木柄長約廿五公分，用時，一手執柄，一手執頂端鑲有骨子之竹著敲之。亦為僧道常用之法器。

No. 90—The *Cheng* (錚)  
a percussion instrument and its form like a small gong of 10 cm diameter. It is hung on a metal frame, struck with a bamboo stick. It is used mostly for monk's prayer.

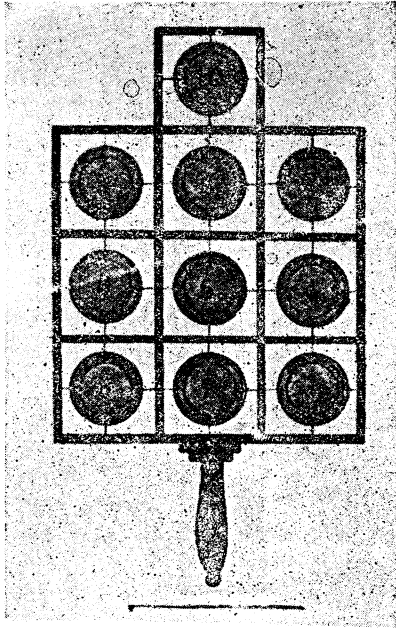
No. 91—The *Lo* (鑼), or "gong," is cast in the shape of a platter or a Chinese straw hat with large brim; it is of various sizes, varying from 8 cm to 120cm in diameter. It is suspended by a string, and struck with a mallet. The use of this noisy instrument is very general. At the gates of yamens it announces the arrival of visitors; in the army it gives the signal of retreat; in processions it frightens and drives away evil spirits; on board ship it announces departure; during eclipses "it frightens the heavenly dog when about to devour the moon"; in songs it marks the time; in the streets a small gong is the sign of the candy merchant, and a large one may announce the approach of the district magistrate with his retinue; in Buddhist temples it is beaten to call the attention of the "sleeping gods."

Native descriptions rarely mention the gong, perhaps because it is popular merely and is not required for imperial worship.



(91)

鑼  
鑼，為我國民間常見之樂器，形圓如盤，似由古之鉦簡化而來，以銅鍛造，邊穿小孔繫之以繩，提而擊之。鑼之形式及大小隨使用性質而異，大者面徑達百廿公分。惟現代化國樂團採用者多為面徑六十分之平面鑼。



(92)

### 雲鑼

雲鑼又名雲墩，俗稱十音鑼。據元史載元時（十二世紀中）即有之，其鑼數有十三面。今之常見者（如圖92），僅爲十面，可以和奏旋律較簡之樂曲，其音域如圖（93）。



(93)

No. 92—The *Yun-lo* (雲鑼), or “gong chimes,” is an instrument composed of 10 little gongs suspended upon a frame by fine silk cord. The gongs are all of the same diameter, but they differ in thickness. The *yun-lo* is used at court, mainly on joyful occasions: at the Confucian worship it is required only in the “Guiding March.” It is to be seen sometimes at wedding and funeral processions, It has become exceedingly difficult to find a *yun-lo* capable of, giving a satisfactory gamut; besides the pitch is not uniform, so that two *yun-los* rarely agree. The scale is ordinarily C, D, E, F G, A, B, C, D, E, or, in Chinese notes, 合, 四, 乙, 上, 尺, 工, 凡, 六, 五, 凡

鏡鈸  
據宋朝陳陽樂書載  
南齊時（公元四七  
九—五〇一年）穆士  
素造鈸，有正銅鈸與  
和銅鈸之分，似即今  
之鏡鈸。今者一般辨  
別爲其邊向裏扣者爲  
鏡，其邊向外張者爲  
鈸，直徑均爲三十公  
分以上。用時一人執  
鏡，一人執鈸交錯和  
奏，如圖（94）



(94)

No. 94—The *Rao Po* (鏡鈸) are two percussion instruments exactly the same principle as cymbals. The edge of the plate formed inward called ‘Rao’, while outward called ‘Po’. Diameter of present *Rao po* are 30 cm.

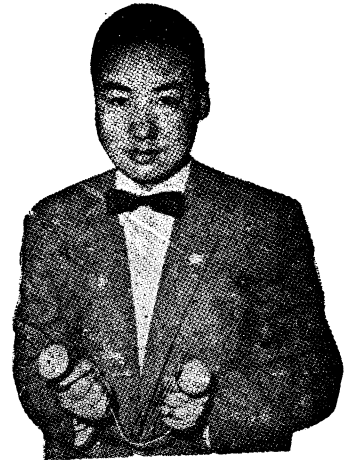


(95)

齊鈸較鈸  
為小而薄，  
現代化國樂  
團採用者直  
徑約為廿公  
分，用作配  
奏慶典之樂  
章。

No. 95 *Po* (鈸) or "cymbals," are made on exactly the same principle as Western instrument. They are said to have come originally from India. The use of them is most conspicuous at theatrical performances. After a quotation, a command, a verse, etc., the cymbals give 10 or 15 notes in rapid succession.

星，又名碰  
鐘，清會典載  
：范銅如二杯  
，左右合擊，  
凱歌樂中用之  
。常見之星，  
口徑為四·五  
公分，高二公  
分。



(96)

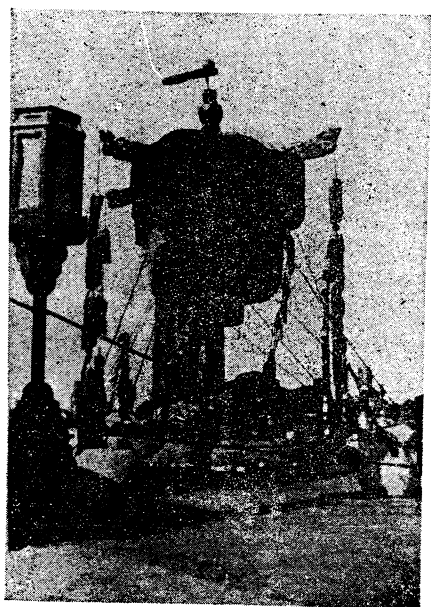
No. 96—The *Shing* (星) Also called "peng chung". Two cups of bronze struck each other, sound like bell. It's diameter is 4.5 cm. and high 2 cm.



(97)

引磬又名單  
星，較星略大  
。口徑五·五  
公分，高四公  
分，下裝長約  
廿五公分之木  
柄，以小銅箸  
敲擊。為僧道  
常用之法器現  
代國樂團亦採  
為常用之擊樂  
器。

No. 97—The *Yin-Ching* (引磬) . A small bell of 4 cm high 5.5 cm in diameter fixed on a wooden handle of 25 cm long. It is struck with a small metal stick.



(98)

## 建鼓

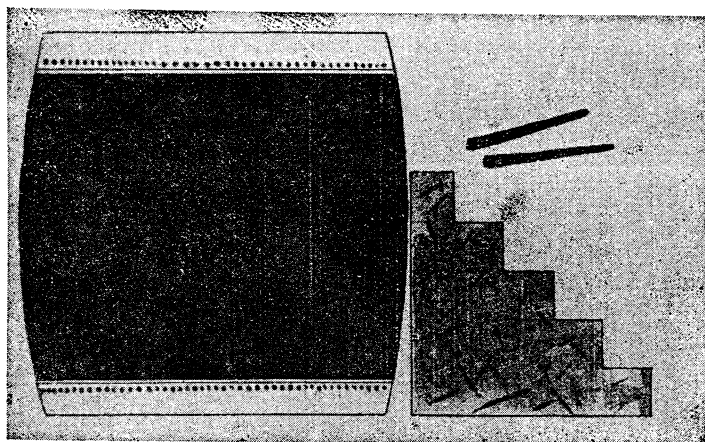
據陳陽樂書載，鼓之制溯始自少昊氏（公元前二五九七年），古時爲八音之革樂。種類甚多，最大者面徑六尺。孔廟所用之建鼓，有足架又名足鼓，其鼓面徑約爲一百二十公分，穿鼓腰爲方孔，以柱貫其中而樹之，柱上施華蓋，柱下接十字形之足附，刻四獅形。如圖（97）

No. 98—The *Chien Ku* (建鼓) The idea of using animal's skin as the vibrating medium to make the drum was the remotest age invention. It is said that certain Hao-She (2597 AD) was the first one who made the drum. *Chien Ku* used in the confucian temple has 120 cm of diameter, it is supported horizontally on a pedestal which raises it quite high from the ground.

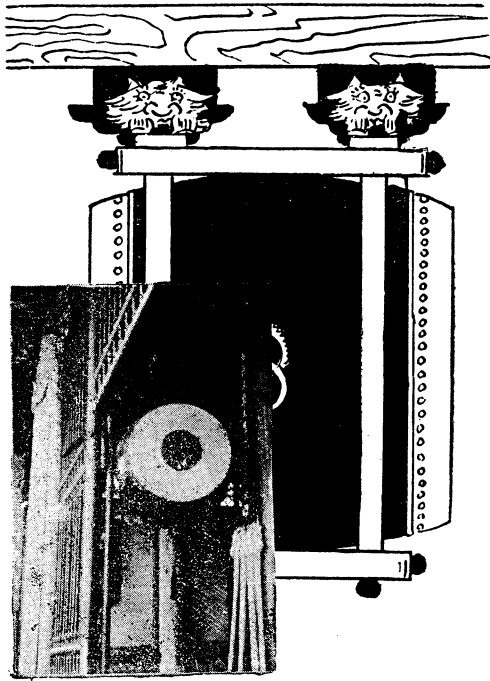
No. 99—The *Kao-Ku* (皋鼓) A big drum used in the military. 360 cm. high and 180 cm in diameter. An old instrument not much seen now.

## 皋鼓

。皋鼓，古時起役、止役所用之大鼓，長達一丈二尺。賁鼓次之，長八尺，以鼓軍事。



(99)



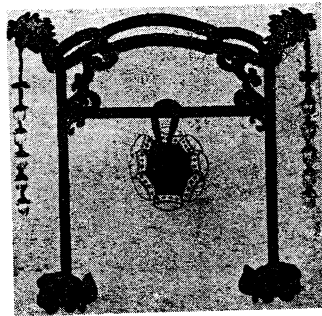
(100)

晉鼓  
 晉鼓爲今之寺廟鐘鼓樓常見之大鼓，懸於楹間，鼓面直徑大者五尺，小者三尺。大成鼓。孔廟鼓亭所懸者名大成鼓。

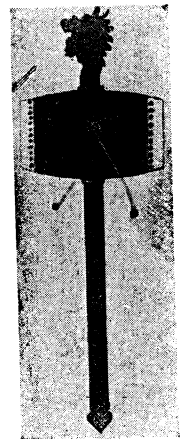
No. 100—The *Chin ku* (晉鼓) is also called 大成鼓 (*Ta-ch'eng-ku*), because it is ordinarily placed on the left side of the *Ta-cheng* gate. At the Peking Confucian temple it is suspended in the eastern pagoda, and corresponds to the large bell hung in the western pagoda. It is about 155 cm in diameter.

鞀鼓

鞀鼓俗名搖鈴鼓(如圖 101)•傳爲帝舜時夔所創，孔廟所用者鼓面徑約十五公分，桶長三十五公分，柄長五十公分。古時賓至搖之以奏樂，祭孔時則於每章將終時隨搏附搖之，以三搖爲度。另有懸於架之上鞀鼓如圖(102)，今不常見。

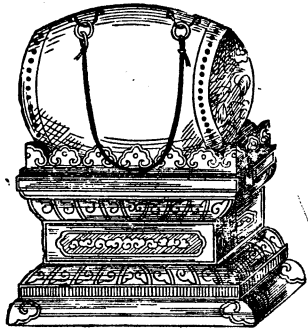


(102)



(101)

No. 101—The *T'ao-ku* (鞀鼓) has a handle passing through the barrel. Two balls are suspended by strings from the barrel, and when the drum is twirled they strike against the heads. Of drums of this kind used at the Confucian ceremonies there are two, placed on the east and west sides respectively; they are sounded three times at the end of each verse. Such drums are now out of use.



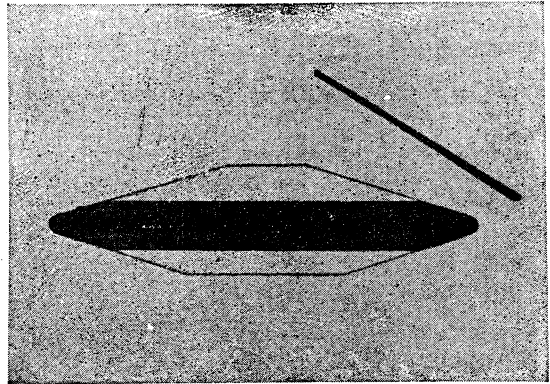
(103)

搏附形如小鼓，傳亦為變所創。古制以革為之，中實以糠，以手拍擊，用以節樂。近代則易以革，長約四十公分，徑廿公分。

No. 103—The *Po-fu* (搏附) is a small drum 40 cm in length, and 18 cm in diameter. The table on which it rests is 30 cm high. The *po-fu* is used only in religious ceremonies. At the Confucian temple there are two—one on the left, the other on the right side of the hall. In playing, the performer holds the drum on his knees and beats it with the hands.

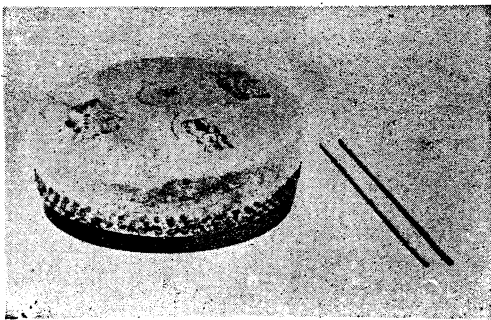
懷鼓，徑約二十公分，木為桶，兩面均蒙以革。用者坐時平放於兩腿間，以竹箸敲擊。

No. 104—The *Huai-Ku* (懷鼓) Small drum with 20 cm of diameter and 5 cm high. Both faces of the drum are covered with leather. It is played with a bamboo stick, and the drum is put on the lap of the player.



(104)

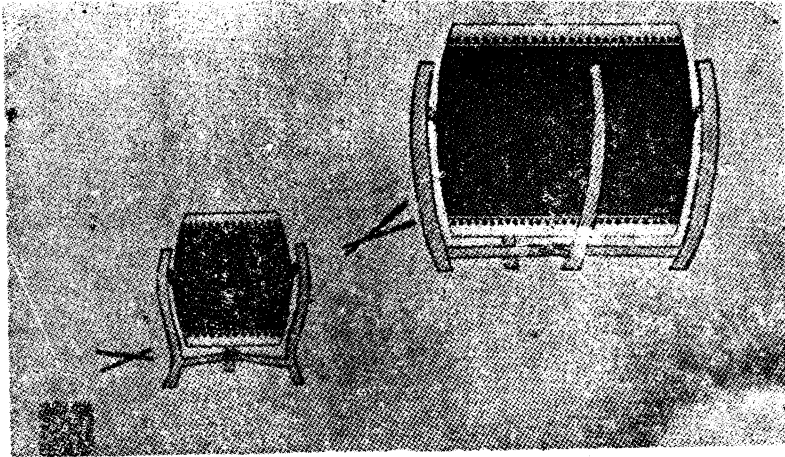
榔鼓為戲班中之主要革樂，堅木為體，面徑約廿五公分，厚約十公分，中心挖一洞，約五公分之徑，以兩竹箸槁擊，發音的強銳短促而強。



(105)

No. 105—The *Pang-ku* (榔鼓) is a small flat drum, with a body of wood; the top is covered with skin and the bottom is hollow. The diameter of the head is about 25 cm. It rests on a wooden tripod. It is chiefly used in popular orchestras to beat time and accompany songs and ballads.



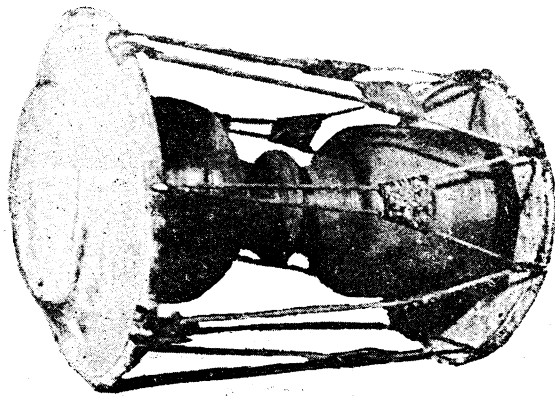


(106)

No. 106—The *Ta Ku*, and *Tang Ku* (大鼓，堂鼓) The most common drum called *Ta Ku*.

*Tang Ku* is the drum used in Chinese opera, It is about 20 cm. in diameter and 35 cm high.

大鼓，堂鼓  
大鼓為民間常用大鼓之總稱，放之於四脚架而平擊之，面徑約一公尺。堂鼓則為戲劇班中常用之正樂，面徑約二十公分，桶高卅五公分。



(107)

手鼓  
手鼓為國樂儀隊中輕便之鼓，革面之鬆緊可調節，全長約八十公分，鼓面直徑約廿五公分。以手拍擊之。十番鑼鼓樂隊中常見之。

No. 107—The *Shou Ku* (手鼓) Small drum using in a procession. Whole length is about 80 cm. and the surface diameter is 20 cm. It is played with hand.

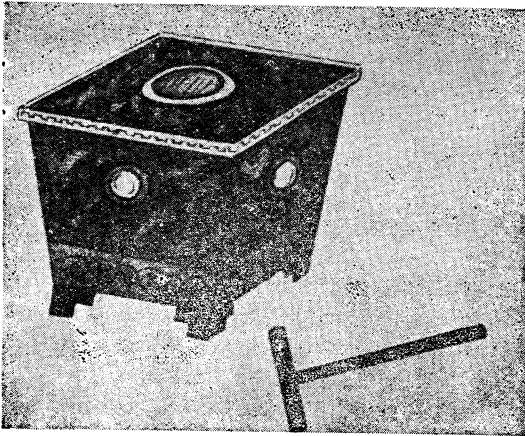


(108)

扁大鼓  
扁大鼓，古時可懸於木架，如懸鑼焉。為現代國樂團採用大鼓之一種，便於攜帶，面徑八十公分，桶高二十分者已通用。

No. 108—The *Bian Ta Ku* (扁大鼓) Ordinary flat drum much used in modern Chinese orchestra. Surface diameter is 80 cm and 20 cm of height or thick.





祝，木製如米斗，傳  
為夏代時啓所制，今為  
祭孔時用作起樂樂器。  
上邊每邊長約七十公分  
，下邊約五十公分，高  
亦五十公分，奏樂開始  
時，用木柄先撞器底一  
聲，次擊左右旁各一聲  
，共成三聲。

(109)

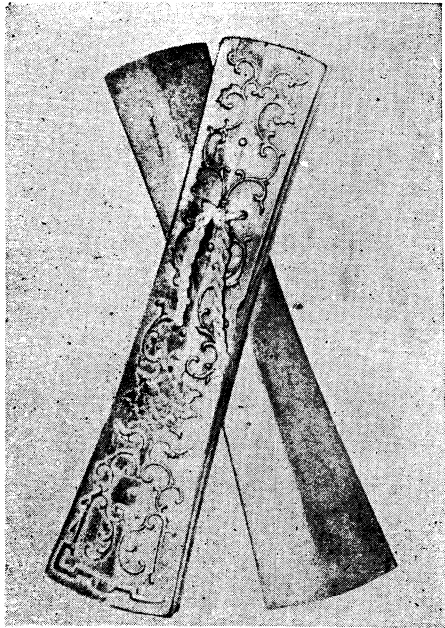
No. 109—The *Chu* (祝) resembles a square box, but it is larger at the top than at the bottom. It should measure at the top 70 cm on each side, and at the bottom 50 cm feet. The height should be also 50 cm. But these dimensions are not adhered to. In the middle of the box there is a hammer; so contrived as to move right and left and in one of the sides is a hole through which to pass the hand. The ancient *chu* was made of 梧桐 (*wu-i'ung*) wood. The interior is painted yellow, and the sides blue, red, black, and white. It is adorned with landscapes, figures of fabulous animals etc. It is used only at religious ceremonies.

No. 110—The *Yu* (豳) has the form of a tiger resting on a rectangular box. It should be 105 cm. in length, 50 cm. in width, and 30 cm. high. The tiger has on its back 27 teeth, resembling a saw. At the end of each strophe the attendant strikes the tiger three times on the head, and rapidly passes his stick three times along the projections on the back. to announce the end of the strophe. The *yu* is placed on the west side of the Confucian hall.

豳，木製如伏虎。  
傳亦為啓所制，背有竹  
製之齶齶二十七片，長  
約八十五公分，寬約三  
十公分，高約三十公分  
，現亦祭孔專用樂器。  
奏樂終了時，以竹製之  
齶先擊首三次。再逆撥  
齶三次，共成六聲。



(110)



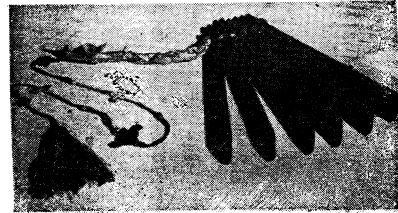
(111)

No. 111- The *P'ai-pan* (拍板), or "castanets," are two small slabs of a kind of red-wood attached together with silk cord, and on which a third slab of the same kind of wood is struck to beat time. These are in common use in popular orchestras. An ancient kind of castanet consisted of 12 small slabs of bamboo fastened together, upon which poetry was engraved; it was named 春牘 (*ch'un-tu* No. 112), and was used at religious ceremonies. Nowadays the *ch'un-tu* has been replaced at the Confucian ceremonies by another kind of castanet called 手版 (*shou-pan*). The slabs of the *shou-pan* are of 槐 (*huai*) wood, 24 cm long, 1 cm thick, 6 cm broad at the lower end, and only 5 cm at the upper end. The words of the hymn are engraved on it. Each of the six singers has charge of one *shou-pan*; at each word they strike the slabs against the palm of the hand

木魚 木魚為僧道常用法器，以木挖空。其形如直魚長達四尺，經常懸於廊前專司號令者今已不常見。其形如圓魚大者徑達八十分公分如圖(113)，小者僅五公分。現代國樂團採用者為直徑十至十五公分之小木魚如圖(114)，且選其高低不同音者為一組以配樂。

No. 114— The *Mu-yu* (木魚) or "wooden fish," is made of a block of wood hollowed out and shaped somewhat like a skull. It is painted red all over, and is of all sizes, up to 10 cm to 15 cm in diameter. It is used by priests to mark time in the recitation of prayers when begging from door to door or in performing their ceremonies.

拍板。以堅木兩付，上端穿一孔貫之以繩。夾於手掌撞擊長約廿四公分，寬約五公分，為戲班之主要樂器。圖(112)名春牘。亦板之一種，以檀板六片組成，兩手執之碰擊成聲。常見於南管音樂中。



(112)



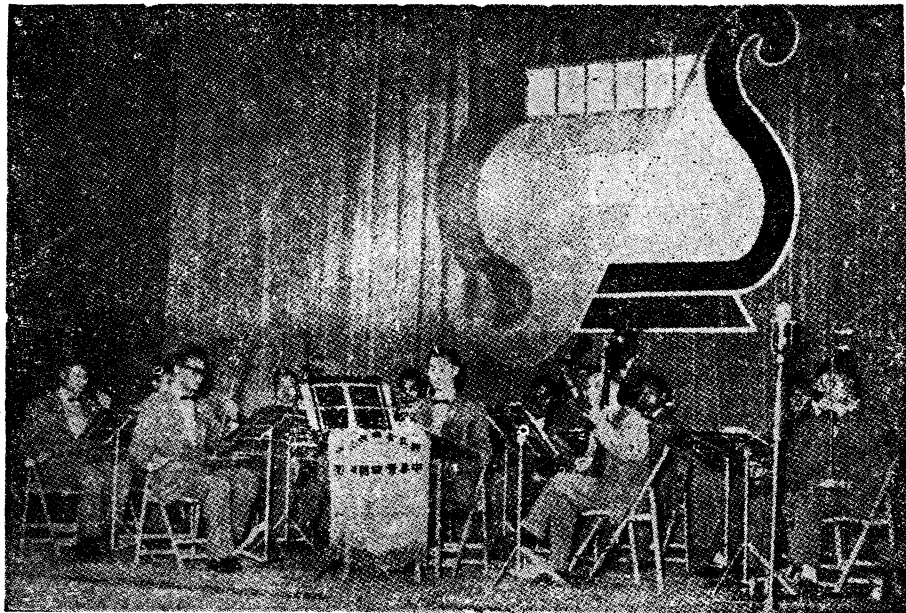
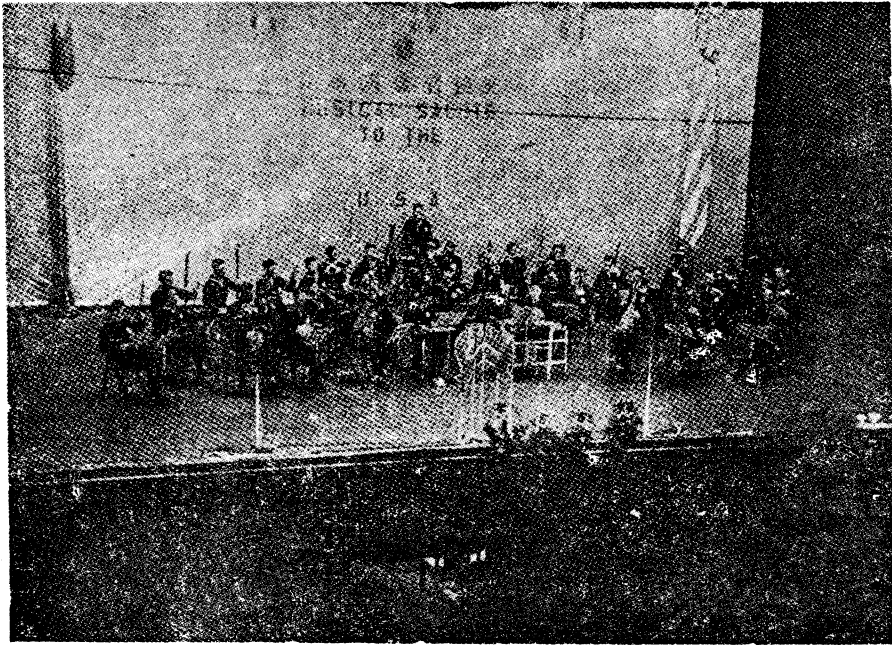
(114)



(113)

現代中國古典音樂演奏團圖片

Modern Chinese classical music orchestra.



## 後記

王紹清

我國自成周以降，即以「樂」爲施教要義。論語泰伯篇載孔子云：「興於詩、立於禮、成於樂」。歷代名賢本之引敘，史不絕書。其於輔弼政教、移風易俗，功不可沒。

奏樂必先有器，器之不良則不能合樂。古籍記載多尙律呂之理論，對於樂隊之編制及樂器之製造則每語焉不詳，尤鮮有附圖，古樂失傳固亦爲主因之一。迄於今日名存器亡或一器數名，後人睹其器而不知其名，卽前輩之人亦有不知其用者，是故編印樂器圖式，實事所必需。

固然時代文明進步之如現代，古之樂器或已不盡適用，但反觀現時所謂進步之樂器，殆無一非從「作始也簡」演變而來。逕行採用西方國家已改良之樂器，誠較利便而省事，但東西方民族各有其獨特之曲謠與特有之樂器音色，配合不當尤無法發揮，譬如唱皮簧不宜採用小提琴取代京胡。明乎此，中國樂器仍有其繼往開來之必要，問題是在製造上如何改進而不變易其特有之音色。值茲倡導文化復興運動如火似茶之際，振興國樂無疑爲其要項之一，樂器圖式之編印更須接續發揚。

本館於四十九年十月在鄧前館長主持下，卽編有國樂樂器圖式一書，因各方需求頗多，已告罄多時。余來館之後爲擴建廳堂暨安裝冷氣工程，所費已多，謀未及此。現以建設餘裕，乃函籌再版。作爲本年孔子誕辰獻禮。

寧知年來國樂新器已多種出現，前編之資料亦尙有若干需待補充者，但以各方催促孔急，不及研究整理，尙有待重新增補再行編印續集，至祈樂壇同好多多指引匡導方克有濟，茲值再版，爰爲後記。

五十七年九月誌於國立臺灣藝術館

## SUPPLEMENTARY NOTE

The "Chinese Musical Instruments" had been published under the auspices of the then Director Teng Chang-kuo in October 1960. Since the book in great demand, it has been out of print for a long time. At the beginning of my assuming the directorship of this Center, much was spent on extending the auditorium and on setting the cooling system; consequently, reprint of the booklet was hardly possible.

Now, some respite is gained; we print this re-issue which will be dedicated to the birthday of Confucius.

It is noted that several new Chinese musical instruments have been found, and that more materials should be added to. All these may have to wait for the next edition.

National Taiwan Arts Center  
Taipei, Republic of China  
September, 1968

South-King Wang  
Director

式 圖 器 樂 樂 國

CHINESE MUSICAL INSTRUMENTS

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—▶▶▶▶▶▶▶▶▶▶—  
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