Hands On Learning
with Reading Museum Service

MUSICAL INSTRUMENTS OF THE WORLD G150

Wooden Bones

After the human voice, 'bones' are perhaps the oldest instruments known to humankind. Originally they were literally made from the ribs of a goat or sheep, but wooden ones produce a similar effect. The picture below left, painted in 1856 by William Sidney Mount, shows a bones player in America.





To hold and play the instrument the two bones are placed parallel to each other between the fingers of the hand, extending downward. Sound is produced by moving your wrist in such a way that they knock against each other. The effect is further enhanced by the use of two pairs of bones, one in each hand. A skilled practitioner can produce a wide variety of percussive sounds reminiscent of those made by a tap dancer. Two metal spoons are often used to produce the same effect.

Shakespeare mentions the bones in Act IV, Scene I of *A Midsummer Night's Dream*. Bottom the weaver says, 'I have a reasonable good ear in music. Let's have the tongs and bones.' By the seventeenth century the bones were often called 'knicky-knackers' in England. This set is made from a dark hardwood, possibly ebony.

Traditionally such instruments have a curve in them, unlike the pair in this box. In being uncurved they resemble claves - the rhythm sticks which are used in Cuban and Cuban-influenced music. Claves, though, are usually two round sticks, one of which is held in a loosely cupped hand to form a resonating chamber while the other is used to strike it. A photograph of claves being played can be seen on the right. Flat sticks are more difficult to play in this way as you are more likely to hit yourself than when using a rounded stick!



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Castanets



Castanets have the same basic design as the bones or claves, although they consist of a pair of concave shells joined on one edge by string. They are held in the hand and used to produce clicks for rhythmic accents or a ripping or rattling sound consisting of a rapid series of clicks. They are traditionally made of hardwood, although fibreglass is becoming increasingly popular.

In practice a player usually uses two pairs of castanets. One pair is held in each hand, with the string hooked over the thumb and the castanets resting on the palm with the fingers bent over to support the other side. Each pair will make a sound of a slightly different pitch. The higher pair, known as *hembra* (female), is usually held in the right hand, with the larger *macho* (male) pair held in the left.



Castanets are often played by singers or dancers and are prominently used in flamenco music. Their name is derived from *castaña*, the Spanish word for chestnut, which they resemble. In Andalusia they are usually referred to as *palillos* (little sticks) instead and this is the name by which they are known in flamenco. The painting on the left, by Pierre-Auguste Renoir, is called 'Dancing Girl with Castanets'.

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Drum



A drum is the next step on from simply banging together two hard objects, such as the bones. Their basic design has been virtually unchanged for hundreds of years - a hard tube, with its open ends covered by a skin.

This kind of drum is from West Africa and is often referred to as a 'talking drum'.The player puts the drum under one shoulder and beats the instrument with a stick. At the same time the player raises or lowers the pitch by squeezing or releasing the drum's strings with the upper arm. This can produce a voice like effect, although only simple 'messages' can be produced. It is usually used for ceremonial functions, including dance, rituals, story-telling and communication of points of order at meetings. It is perhaps better to refer to the messages communicated by these drums as being in code, rather than a language. These codes vary from group to group - there is no international drum vocabulary which can be understood by different peoples.



The names of such drums varies from region to region. Here are a few of its many names:

Tama (the name used by the Wolof peoples of Senegal)
Gan gan, **Dun Dun** (Yoruba of Nigeria)
Dondo (Ashanti of central Ghana)
Lunna (Dagomba of northern Ghana **-** the photograph on the left shows a musician from the Dagomba playing a lunna)
Kalangu (Hausa of northern Nigeria and Niger)

In the twentieth century talking drums became a part of popular music in West Africa and can now often be seen being used alongside electric guitars (right).



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Gourd Rattle



This rattle is probably also from West Africa. There are many different varieties of gourd - all of them related to melons, pumpkins, and squashes. The bottle gourd (*Lagenaria siceraria*), also often called a calabash, is one of the most useful plants in West Africa. They come in many shapes and sizes - the photograph below left shows an example similar to the one which was used to make this rattle.



Young bottle gourd fruits of certain varieties are eaten as a boiled vegetable. As well as providing food their skins can be dried out to make into containers. There are different ways of doing this. One technique is to fill the partially cleaned gourds with clean, dry sand, and cover them with sand in a container. This is heated over a fire for several days, drying out the gourds. Patterns may be cut into the gourds before they are dried, or the shells may be forced into desired shapes. Well-treated gourds become durable containers, some of which are very large and able to hold a large amount of dry or liquid material. The dry hard shells have been used for bottles, milk pots, churns, bowls, ladles, spoons, work baskets, floats, pipes, musical instruments … almost anything you can imagine. The photograph on the right shows a decorated gourd container from Ghana.





Rattles are often made from gourds. The photograph on the left shows an example from Uganda. The interior has been filled with a number of medium-sized seeds to create a rattling sound when shaken. These would have been inserted through the top of the vessel, where a hole has been cut and then sewn shut with a length of twisted string.

The rattle in this box, however, shows no sign of ever having been cut open or pierced. It was presumably simply dried until the flesh inside had shrunk enough to release the seeds.

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Kartal

This musical instrument consists of a pair of wooden or metal frames to which small metal jingles or bells have been fastened. Kartal are widely used in India and Pakistan to accompany folk songs and dances. Each pair is held in one hand and a thumb is inserted through the hole in one of the blocks, while the other four fingers fit into the larger curved hole in the other frame. The two parts are then clashed together in time to the music. The photograph on the left shows a metal kartal being played.





Tambourine



A tambourine combines a frame drum with jingles. A frame drum differs from a drum such as the talking drum in having a drum head that is wider than it is deep. The drum head is tacked into place. Some tambourines have done away with the skin entirely, leaving just the frame with its jingles. The photograph on the right shows a modern half-moon tambourine of this kind.





The origin of the tambourine is unknown. It may have been developed independently in several places. The picture on the left is from the Chehel-sotoon Palace, Isfahan, Iran and dates from the seventeenth century. It shows a traditional middle-eastern frame drum called a daf which has been fitted with jingles. The word tambourine has its origins in the Persian word tambur, meaning drum.

Tuning Fork

A tuning fork is a simple steel two-pronged fork. When struck it gives out a very faint note which is barely audible unless held close to the ear. For this reason, it is sometimes struck and then pressed down on a solid surface such as a desk which amplifies the note. A tuning fork is used in music of the European tradition to tune instruments.



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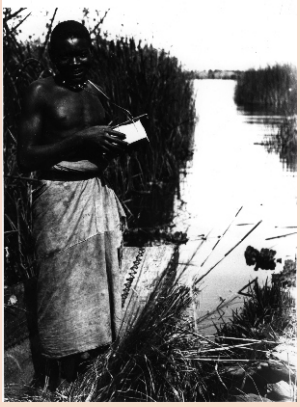
Thumb Piano



This kind of instrument which consists of a staggered set of metal keys fastened to a resonator has a number of different names. In Europe it is known as a lamellaphone, but in Africa where it originates it has hundreds of different names. Some of the most well-known are mbira, sansa and kalimba.



Thumb pianos are made from an assortment of materials, such as wood, metal cans, coconut shells and, as in this case, dried gourds. The Museum of Reading has several old examples of this instrument which have been made using empty Huntley & Palmers biscuit tins in order to amplify the sound! The lady on the left is playing an instrument made from such a tin. They also come in a great variety of sizes, shapes and types. In recent years the traditional acoustic form has seen the development of electrical versions (right).



African thumb pianos use different musical scales from those of European instruments. Also, tuning in Africa is regional, which means that a tuning from one particular area might not match exactly with a tuning from another area if the scale intervals are compared. Another difference between African and Western keyed instruments is in how the keys are arranged. A Western keyboard (as on the piano) is arranged from lowest pitches to highest from the left to the right. Most thumb pianos are arranged with the lowest key in the centre, and the player alternately plucks right and left or vice versa (depending on how the keyboard has been set up) to ascend the scale.

The basic technique for playing the thumb piano involves plucking the keys with the fingertips and fingernails. Some techniques involve playing with the index, middle and ring fingers of each hand, as on the Nigerian *agidigbo* while the Cameroonian *mangambeu* makes use of all the fingers but no thumbs. Other techniques involve the use of the thumbs plucking down on the keys while the index fingers pluck up from beneath them, as on the *mbira dza vadzimu* from Zimbabwe. The material used for the keys varies - some are made from a heavier, stiffer metal that requires the player to have a longer thumbnail to play comfortably, while others may be of a softer, more flexible metal that makes plucking with the fingertip comfortable.