

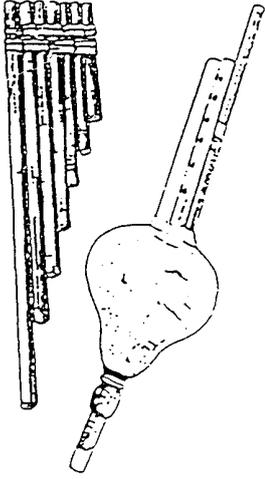
**The Birmingham  
Botanical Gardens**



*Making Music From Around  
The World*



The Birmingham  
Botanical Gardens  
& Glasshouses



## *Introduction*

In the Music National Curriculum, one of the general requirements for study throughout Key Stages 1, 2 and 3 is the inclusion of music from 'a variety of cultures, Western and non-Western'. However, it is not always that easy to find ways of introducing a multicultural dimension to the teaching of music in the classroom.

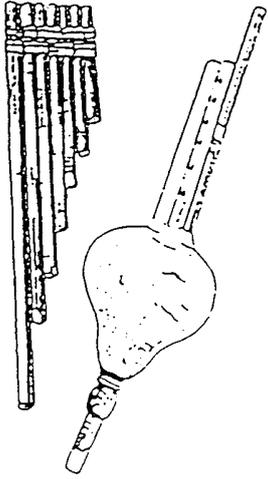
At the Botanical Gardens we have an exciting collection of musical instruments made from natural materials, which come from around the world. These instruments are available for workshop sessions, which allow the pupils to explore a new world of sound and learn more about the places they come from and the people who make them.

This booklet describes the fascinating instruments available; the plant materials used in their construction and practical fun activities that can be carried out with the pupils at the Gardens.

## *Acknowledgements*

Many thanks must go to Andy Wilson from Knock on Wood for supplying us with most of our instruments and helpful background information.





# *Musical Instruments*

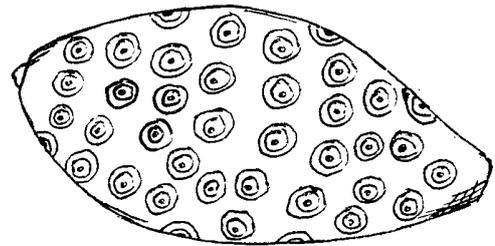
## *Africa*

### **Bean Pod Rattle**

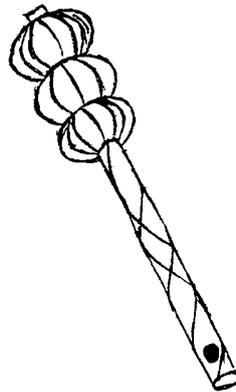
Perhaps the simplest rattle of them all. This example is the pod of the Royal Poinciana tree from Madagascar.

### **Baobab Rattle**

Another simple rattle using the fruit and seeds of the Baobab tree.



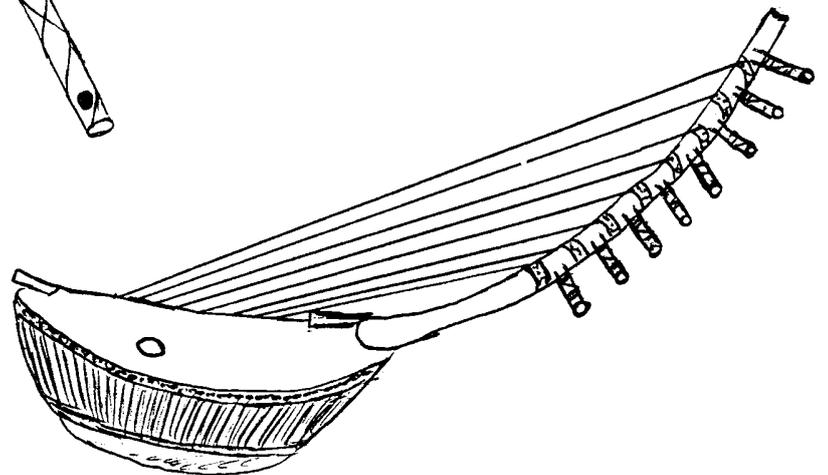
### **Capala**



Another kind of seed pod rattle. Possibly using fruits from the Passiflora group of plants threaded onto a stick.

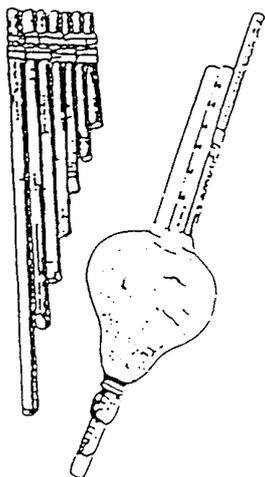
### **Nyatiti**

Uses a calabash as the body of the instrument which acts as the sound box.



# *Musical Instruments*

## *Africa*

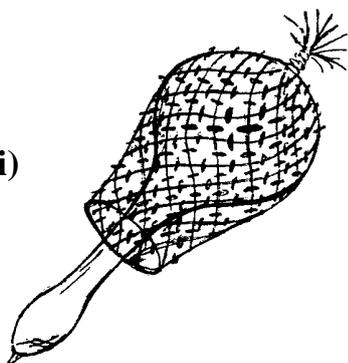


### **Caxixi (Kasheeshee)**

A strong, split cane woven basket rattle from Cameroon. It gives a softer sound than a gourd body.



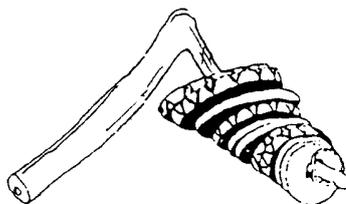
### **Chekere (Shekerri)**



A shaker made from a dried bottle gourd with hard seeds threaded on a net around the outside. This version is from Ghana.

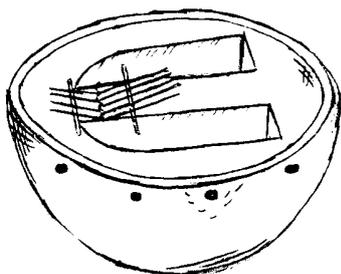
### **Rakatak**

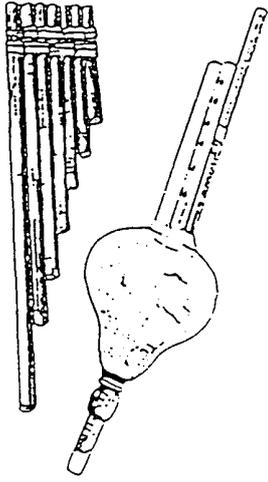
A rattle from Senegal made from small discs of dried gourd on a natural piece of branch.



### **Kalimba**

Sometimes called the “thumb piano”, this instrument makes its mellow sound by means of thin tongues of steel of varying lengths attached to a gourd sound box. This version is from Tanzania.





# *Musical Instruments*

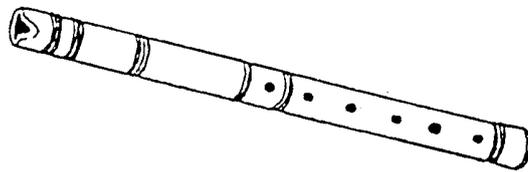
## *Latin America*

### **Panpipes**

Andean panpipes from Peru made of bamboo and held together by a strip of reed. Air is blown across the sharp edge of the open end of the pipe. The length of pipe determines pitch.

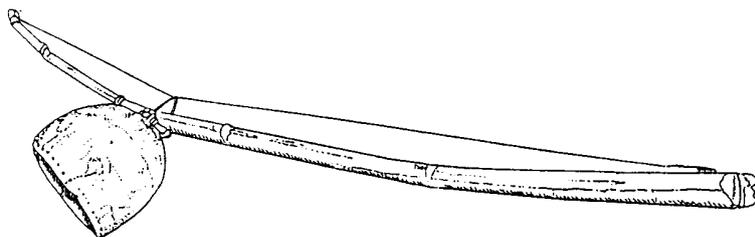
### **Quena**

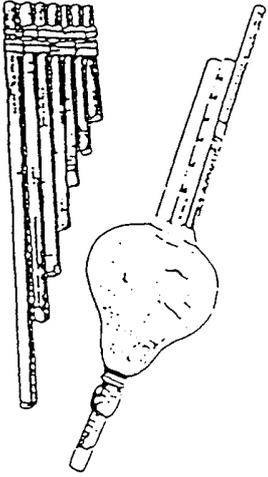
The flute of the Andes. Played by blowing across an edge cut in the end rather than the side of a bamboo cane tube.



### **Berimbau**

This simple instrument is thought to have developed from the hunting bow. The single string on this musical bow can be plucked or struck with a stick to make a sound. A gourd resonator is attached to the string and its open end can be pressed against the chest to give added resonance.



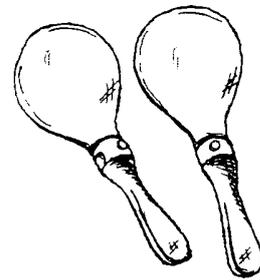


# *Musical Instruments*

## *Latin America*

### **Maraccas**

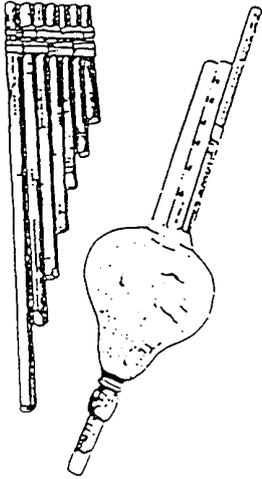
Made from gourds with wooden handles.



### **Rainmaker**

A cactus stalk from Chile, which contains seeds. When upended, the seeds cascade down the internal baffles to evoke the sound of falling rain.



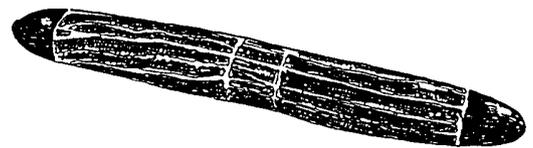


# *Musical Instruments*

## *Australia*

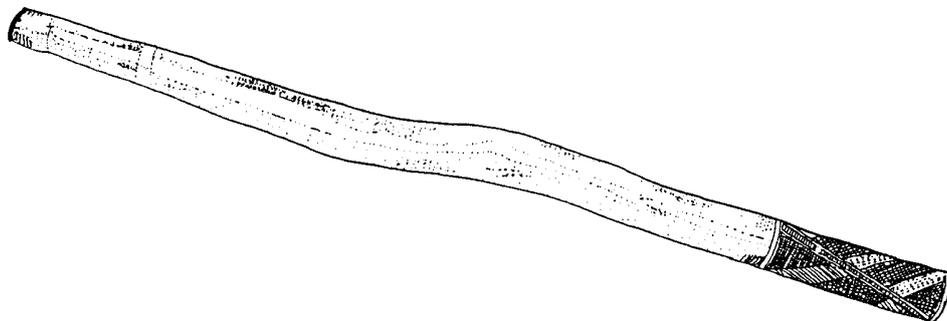
### **Concussion Sticks**

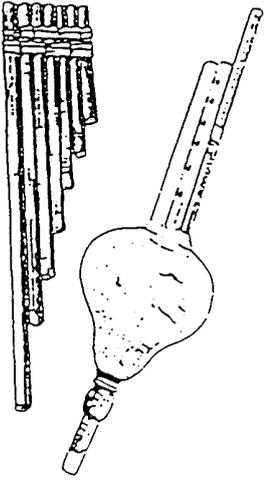
One of the most basic ways of producing a rhythmic sound is by striking together two similar objects. The size, shape and type of wood (hardwood and softwood) influences the sound made.



### **Didgeridoo**

Made from a long straight branch of eucalyptus, which is buried in the ground so that termites bore out the middle. They are usually decorated with ritual motifs and coloured with earth pigments.

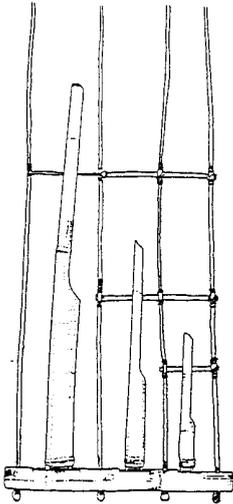




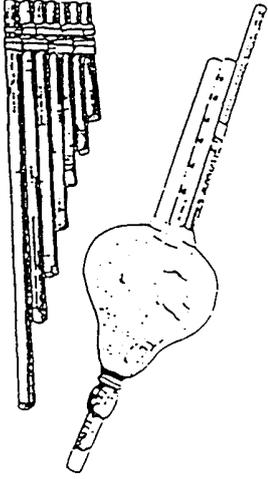
**Anklung**

## *Musical Instruments*

### *South-East Asia*



This instrument from Java is made of three bamboo tubes set into a groove in the base of a bamboo and rattan frame. When shaken, the tubes slide backwards and forwards in the groove, striking the rim and making a note. Anklung are usually made in sets, each tuned to a different note.



# *Musical Instruments*

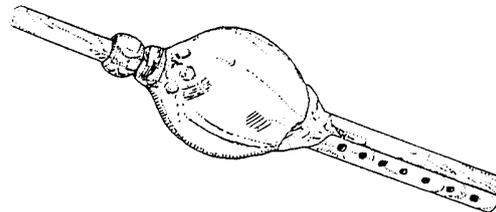
## *India*

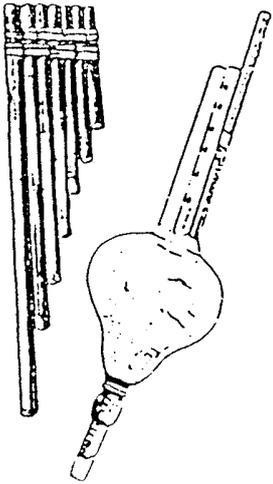
### **Indian Flutes**

Made from bamboo and ranging in length from 15-60cm, they give a warm mellow tone.

### **Snake Charmer's Pipe**

The pipes and mouth piece are made from wood and a coconut is used as a wind reservoir. This reed instrument is an example of a double clarinet where one pipe is a drone and the other pipe is for the melody.

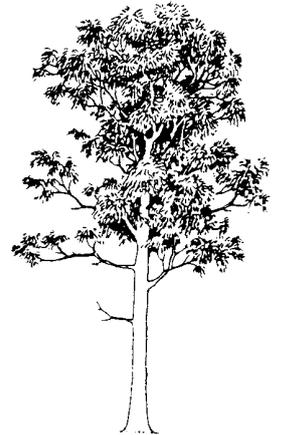




## *Plants Used For Instruments*

### **Eucalyptus**

Aromatic and evergreen trees often with interesting bark colour and texture. In Australia, long straight branches of the tree are used to make the didgeridoo.



### **Cereus**

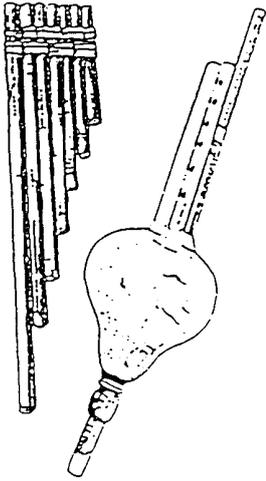
These cacti from S. America have upright stems, which are ribbed and covered in spines. Traditionally used to make rainmakers.



### **Royal Poinciana**

This small tree (*Delonix regia*) is planted worldwide in tropics for its shade and exuberant blooms of scarlet flowers. It has large flat seed pods which are used as a rattle when dry.





## *Plants Used For Instruments*

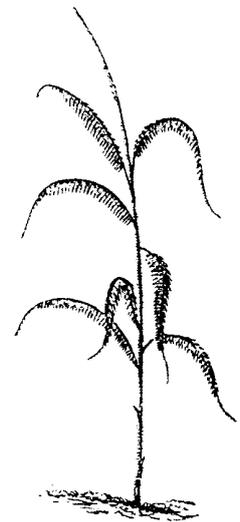
### **Baobab**

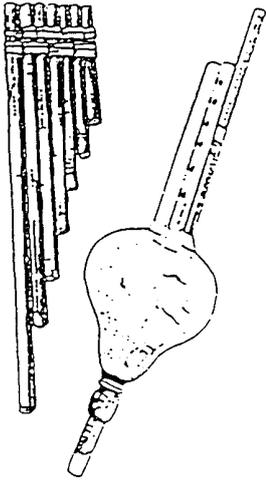
*Adansonia digitata* is well known in Africa for its low spreading canopy and enormous trunk. The tree can live for up to 2000 years. Its large woody, oblong fruits are used to make rattles.



### **Rattan Canes**

Rattans such as *Calamus caesius* are a group of thorny climbing palms found in the canopy of tropical forests in S and SE Asia. The rope-like stems reach 100 metres in length. Rattans are used to make the frames of instruments while thin strips of “cane” are used for binding and decoration.





## *Plants Used For Instruments*

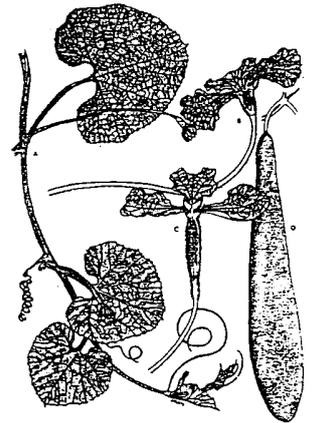
### **Calabash Tree**

A native of tropical America, the calabash tree (*Crescentia cujete*) gives thin woody gourd-like fruit. These tree gourds can be polished, carved and used as musical instruments such as maracas.



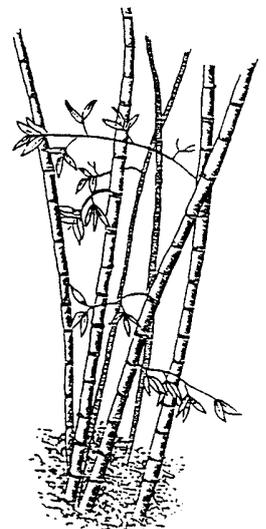
### **Bottle Gourd**

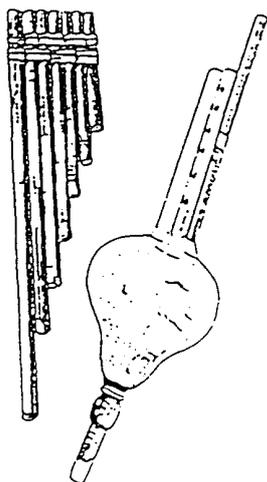
Also known as calabashes, the bottle gourd (*Lagenaria siceraria*) is not from the calabash tree. Instead it is a vine from the cucumber family and climbs with the use of tendrils. The fruits come in an amazing variety of sizes and shapes and are used across the world to make instruments.



### **Bamboo**

Many types of bamboo can be found growing around the world. It is easily used to make into pipes but can also be found as percussion and string instruments.





## *Shake, Rattle and Blow*

These are activities that encourage the pupils to learn more about the instruments that we have at the Botanical Gardens.

### *Instrument Families*

This is an opportunity for pupils to handle the instruments and try to produce sounds from them.

After an initial exploration, the pupils can then be asked to group the instruments using the following criteria:

What plant materials have been used (e.g. gourd, bamboo, eucalyptus)?

Which part of the plant has been used (e.g. stem, fruit, seed)?

How do you make it sound (e.g. shake, blow, pluck)?

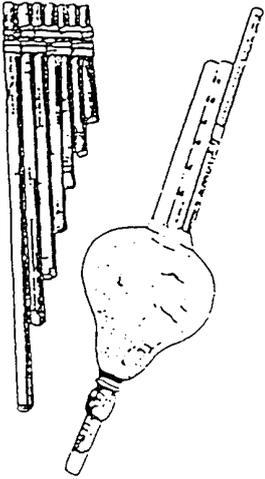
A recording sheet is available in the Appendix.

### *Plants Used For Instruments*

Many of the instruments are made from plant materials, which can be seen growing at the Botanical Gardens. A plan is available in the Appendix for pupils to locate the plants, possibly draw them and experience the climatic conditions in which they grow. Alternatively, pupils themselves can mark the location of the plants on a blank plan of the glasshouses.

### *Where In The World?*

Maps of the world can be used to plot where the musical instruments originate. Information about countries of origin can be found elsewhere in this booklet.



## *Shake, Rattle and Blow*

### *Guess The Instrument*

This uses two sets of the same five instruments

One set of instruments is laid out in front of the pupils. Hidden from their view, the duplicate set is played one at a time.

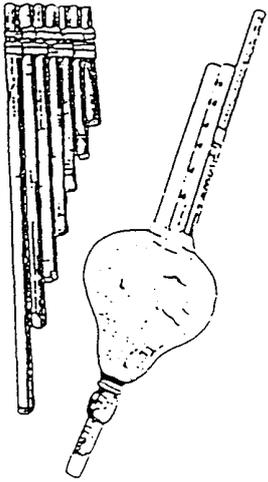
Can the pupils identify the instruments by the kind of sound each one makes? They can check their answers by playing the instruments themselves.

### *A Botanical Orchestra*

All the members of the “orchestra” are given an instrument to play except for one pupil who has been elected to be conductor.

The conductor then directs playing of the instruments using agreed gestures for starting and stopping play. They can bring in and out instruments as they wish with an agreed maximum of people playing at any given time.

Increasing the number of gestures used by the conductor such as louder or quieter can extend this activity.



## *Making Music*

**The many and varied environments at the Botanical Gardens are an ideal stimulus for pupils to start making their own music. Two examples of the way in which our tropical rainforest has been used are given below:**

### *Rain dance*

Arrange the group into a circle. The leader starts off by using their hands to create a sound. The pupil on the right copies this sound with each member of the circle taking up the same action as it passes around.

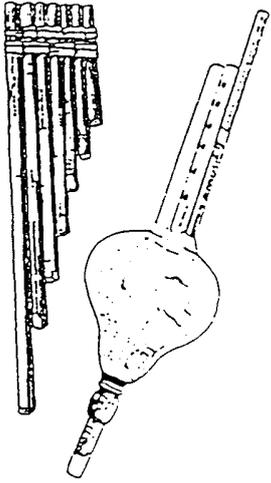
When the last pupil in the circle is reached, the leader changes the sound by a new action with their hands. The pupils continue to make the first action until the child on their right starts the new action, which they then copy. The actions can include:

- rubbing hands together
- tapping chest
- slapping knees
- shuffling feet
- slapping knees
- tapping chest
- rubbing hands together
- silence

### *Creating Rainforest Music*

The group of pupils chooses a place to sit and listen for one minute and write down everything they hear and words to describe the rainforest atmosphere. The use of stories and poems are a good way of creating mood. Pupils can then talk about:

- What sounds were heard and in what order?
- How can we represent the sounds on paper (signs, symbols, words)?
- Can we organise the sounds into a performance?
- Can we create a short piece of music using a selection of instruments that is in harmony with the rainforest environment?



## *Instrument Families*

<b>Name of Instrument</b>	<b>Material (stem, trunk, fruit, seed)</b>	<b>How to Make it Sound (shake, blow, hit, pluck)</b>