भारत के संगीत वाद्य
MUSICAL INSTRUMENTS OF INDIA
2

1. बांसुर (सुनिघ) वाद्य, चित्र, भीमबेट्का, मध्य प्रदेश

प्रागैतिहासिक काल से लेकर आज तक बहुत से शिल्पों तथा चित्रों में सुनिघ वाद्यों या हवा के वाद्यों का प्रदर्शन किया गया है। यह चित्र मध्य प्रदेश में भोपाल के निकट, भीमबेट्का की गुफाओं से लिए गए, एक चित्र को प्रदर्शित करता है। यहां पर दिखाया गया सुनिघ वाद्य एक प्रकार की तुरही (भोपु) है। हमारे पास इस बात को कोई जानकारी नहीं है कि किस आधार पर गुफावासियों ने इस वाद्य का नामकरण किया था।

1. Wind Instruments, Painting, Bhimbetka, Madhya Pradesh

Wind instruments have been depicted in many sculptures and paintings from prehistoric times to date. This picture shows a painting in the caves from Bhimbetka near Bhopal, in Madhya Pradesh. The wind instrument shown here is a kind of trumpet, however, we do not have any information on what the cave dwellers might have named it.
2. बांसुरी

इस चित्र में कलाकार एक सपाट बांसुरी बजा रहा है। बांसुरी का यह प्रकार धीमी गति के खर-समुह अथवा भारतीय संगीत में आलाप बजाने के लिए सबूतिक उपयुक्त होता है। बांसुरी का यह प्रकार नृत्य-प्रदर्शन में लोकप्रिय है। हरिप्रसाद चौरasia, सिक्किल बहनें और एन. रमानी वर्तमान समय के प्रमुख प्रसिद्ध बांसुरी वादक हैं।

2. Flute

This picture shows an artist playing on an horizontal flute. This type is best suited to playing the slower passages or the alap in Indian music and is popular on the concert platform. Prominent flutists today are Hari Prasad Chaurasia, the Sikkil sisters and N. Ramani.
3. Gesture for flute in Dance forms

The gesture for playing the flute is depicted in almost all the dance styles. The position of the hands and the fingers vary in dances belonging to different regions and there are slight variations in the position of the hands for portraying the gesture in dance forms like Bharatnatyam, Kathak, Odissi, Manipuri and Kathakali. Though these dances originated in different states, they are now performed all over the country. These dance styles and many other forms are also being performed and appreciated in many countries abroad.
4. Traditional Kalighat Painting, 19th Century

Krishna as the flute player has been depicted in painting in numerous styles all over the country in different periods of time. This picture shows Krishna playing the flute with Radha standing beside him. This is a Kalighat painting of West Bengal which is known for its bold drawing of figures and dramatic use of colours.
5. गीत गोविन्द, चित्र, राधा के साथ कृष्ण, पूर्व 18वीं शताब्दी

भारतीय चित्रकला में कृष्ण का चित्र कांसुरी वादक के रूप में एक सर्वप्रथम विपरीत वस्तु है। प्रस्तुत चित्र, पूर्व 18वीं शताब्दी के गीत गोविन्द की सचित्र फाउलियों से लिया गया है। इस चित्र में, कृष्ण कांसुरी बजा रहे हैं जबकि राधा ने अपने हाथ में कंमल का फूल पकड़ा हुआ है।

5. Gita Govinda, Painting, Krishna with Radha, early 18th Century

Krishna as a flute player is a well known theme of Indian painting. This painting is from the illustrated manuscript of Gita Govinda of early eighteenth century. In this picture, Krishna is playing the flute while Radha is holding a lotus in her hand.
6. अलगोज़ा

पंजाब का अलगोज़ा और उत्तर भारत के अन्य भागों में पाया जाने वाला अलगोज़ा दोहरी बांसुरी का एक दिलचस्प नाम है। इसमें दो बांसुरियाँ भली प्रकार एक-दूसरे से जुड़ी हो सकती हैं या फिर दोनों को रूपक रूप से पकड़ा जा सकता है। इनको एक बार एक करके बजाया जाता है। दोनों में से एक बांसुरी केवल पूल त्यार करती हैं, जबकि दूसरी को राग हवादित बनाने के लिए प्रयुक्त किया जाता है। अलगोज़ा से मिलता-जुलता एक वाय राजस्थान में बहुत मिलता है। इसे ‘सतारा’ के नाम से जाना जाता है पर यह अलगोज़ा से थोड़ा-सा लगना होता है और उसका स्वर भित्त होता है।

6. Algoza

The Algoza from Punjab and other parts of North India is an interesting variety of the double flute. Two flutes may be tightly fixed to each other or the two can be held loosely in the hands. They are blown into simultaneously, though, one of them provides only the drone or basic note while the other is used for playing the melody. Similar to the Algoza but slightly longer and of a different pitch is an instrument mostly found in Rajasthan known as the Satara.
7. Shehnai

The Shehnai is a reed instrument in which there are seven holes along the tube which are used for playing the melody by opening and closing them with the fingers. It is known as a Mangal vadya and is usually played on all auspicious occasions in north India such as marriages, temple festivals, etc. The Shehnai is considered to have come to India from West Asia, there are other scholars who believe that this instrument travelled to China from India. It is now a popular instrument in concerts, the sound is very sweet and suited for playing Raga Sangeet. In the early fifties of this century, Ustad Bismillah Khan is credited for popularising this instrument. Today, Pt. Anant Lal, Pt. Daya Shankar are also noted Shehnai players.
8. Nadaswaram

Very similar to the Shehnai, the Nagaswaram or Nadaswaram of the southern region is, however a larger instrument and is mostly suited for playing outdoors in marriage processions and temple functions. Due to its size, the sound produced is much louder than the other instruments of the family of reed instruments. This reed instrument has, apart from the seven holes for playing the melody, an additional five holes along the bottom of the tube. These are not used for playing but for adjusting the basic pitch, one or more of these holes can be plugged with wax. The accompanying percussion instruments with the Nadaswaram are the tavai, mridangam, maddalam or chenda.

The word Nagaswara in the South refers both to the snake charmer’s pipe (Pungi Been in North India) as also the double reed instrument popular at temple functions, marriages, etc., and now played in concerts as well.
9. Pungi Been

The construction of the Pungi Been, more commonly known as the snake charmer's pipe is quite interesting. A tube is inserted into a small gourd. This is used for blowing air which collects in the gourd making it pass through two bamboo or reed pipes, which are inserted into the lower end. Both pipes produce sound, but one produces only the drone (as in the double flutes) and the melody is played on the other pipe by controlling the passage of air through the finger holes.
10. Masked Dances, Bhimbetka Painting, Madhya Pradesh

All over the country, drums provide rhythmic accompaniment to group dances being performed in the rural and tribal areas. Masked dances are very popular even today, the masks from different parts of the country have their own regional peculiarities. This painting from the Bhimbetka caves of Madhya Pradesh which is 5000 years old shows a group of dancers. One dancer is wearing a mask and others are playing the horizontal (Ankya) and the embraced (Alingya) type of drums.
11. Tabla

The Tabla pair is a set of two vertical Oordhwaka drums. The right side is called the Tabla and the left, the Bayan or Dagga. The Tabla has a wooden body with a covering of animal skin, this is held together with leather straps. Between the straps and the wooden body, oblong wooden blocks are placed. These are used for tuning the drums. There is a syahi paste applied in the centre of the animal skin, the tabla can be tuned accurately by striking the rims with a hammer. The body of the bayan is made of clay or metal and is covered with animal skin which also has syahi paste applied on it. Some musicians do not tune this drum to an accurate pitch.

The tabla pair is used as accompaniment to vocal and instrumental Hindustani music and with many dance forms of northern India. The complicated talas of the Hindustani music are played with great virtuosity on the tabla. Prominent musicians playing the tabla today are—Ustad Alla Rakha Khan and his son Zakir Hussain, Shafat Ahmed and Samata Prasad to name a few.
12. Ajanta Drums, Sculpture, Maharashtra

Apart from textual references, representations of musical instruments are to be seen in sculptures and paintings from prehistoric times to the present day. The first century sculpture of Ajanta shows a musician sitting behind a pair of vertical drums. These resemble the Tabla and Bayan pair that we see on the concert platform today.
13. Chenda

This variety of Oordhwaka drum is very popular in Kerala and some parts of Karnataka. It is a vertical drum made of hollow wood with a covering of skin held together with ropes. Notice that leather straps are not used in this instrument. The tuning is done by tightening the ropes and striking the rims with a hammer. It is played by using a stick and the fingers. It is one of the prominent percussion instruments used in Kathakali dance, Yakshagana performances and many other traditional and ritual dance and theatre forms of the region.
14. **Nagara**

The Nagara is a variety of small vertical drums which usually provides accompaniment to folk music. Scholars believe that the name of the drum has been derived from *naqqara* from Western Asia. Many Shehnai players use the nagara drums along with the tabla pair to provide rhythmic accompaniment in their concert performance. The nagara pair are two conical drums. They are of different sizes, the smaller referred to as *jheel* or *madi* and the larger as *Nar*. Because of the differences in size, the volume and pitch varies in both the drums. Since the Nagara pair is small in size, it is easily portable and is seen carried on backs of camels, horses etc.
15. Mridangam

The Mridangam is one of the most ancient drums in India used today on the concert platform. As the name suggests this drum must have been made of clay; Mrīt, i.e., clay. It usually provides accompaniment to vocal and instrumental music and dance forms of the southern regions. The structure of the modern Mridangam is very simple. The animal hide covers the two open ends of a hollow wooden barrel. These are joined together by leather straps which can be tightened to suit the required pitch. The right hand side of the instrument has a permanent loading which is known as syahī. It is a combination of iron filings, glue, soot, etc. The black paste is applied to the animal skin, to allow for musicality of the sound. Normally when the stretched skin is struck, the sound produced has no resonance and is harsh to the ears. The application of this syahī makes the sound mellow. The left face is usually blank, but prior to playing, a paste of dough is applied to it. The instrument is held before the musician who sits on the floor. The most intricate talas of the Indian music are played on this instrument. Palghat Raghu and Umayalapuram Sivaraman are popular artists of this instrument.
16. Pakhawaj

The Pakhawaj is one of the most ancient drums of north India. It is a wooden barrel drum bulging in the middle and tapering towards the end. The animal skin placed on both open ends is held together with leather straps and beneath these are placed cylindrical wooden blocks. These are used for tuning. The Mridangam of south India does not have these cylindrical wooden blocks. Finer tuning is done by striking the rims with a hammer. The playing position is similar to that of the Mridangam, where the instrument is placed in front of the musician who plays on both sides to provide rhythm. One side is covered with black paste—syahi, and the other has a temporary application of dough applied just before playing. The instrument accompanies vocal and instrumental music and the most elaborate and sophisticated style of singing known as Dhrupad and Dhamar. It is a popular instrument on the concert platform and also provides rhythm in dance forms such as Kathak and Odissi. A senior Pakhawaj player is Pandit Gopal Das.
17. Raga Meghamalhar, Mewar, 18th Century

Raga Meghamalhar is a seasonal melody and is sung or played in the rainy season. Many ragas have been visualized and painted under the Raganala series in different schools. In this picture you see dark clouds on a rainy day, the peacock and the dancer playing on the ‘ankya’ variety of the horizontal drum while she dances.

The rainy season is important throughout India as it brings welcome relief from the dry hot summer. The agricultural society, dependent on the rain for irrigation of the fields also looks forward eagerly to the rains.
18. Musician, Surya Mandir, Konarak, Odisha

In the Surya Mandir of Konarak, Odisha, there are many sculptures of musicians and dancers, shown sometimes in groups and sometimes, as in this sculpture, a single dancer. Here you see her playing on a horizontal drum. Notice her feet and hand positions which are similar to those found in some dance forms prevalent in India today.
19. डफ

डफ ढोलाकार (बेलनाकार) बनावट के आलिया वर्ग का वाद्य है। यह एक गोलाकार लकड़ी का ढांचा होता है, जिसके एक ओर पश्चिमी खाल (कपड़ी) में ढीली रहती है। इसे कभी-कभी बाज के नीचे या फिर एक लाश से टकराकर के ऊपर जमकर धार्मिक जाता है। जबकि दुसरा हाथ धार देने के लिए प्रयोग में लाया जाता है, तब ताल की उत्पत्ति हो सकते हैं।

19. Duff

The duff belongs to the category of barrel frame drums of the Alingya group. The structure is a circular wooden frame covered with skin on one side. It is sometimes held under the arm or lifted above the shoulder with one hand while the other hand is used for striking it for producing the rhythm.
20. खड़ताल बादक, चित्र, भीमबेट्का, ढाव्य प्रदेश

भीमबेट्का की गुफाओं के इस प्राचीन चित्र में हम नृत्य करते हुए कुछ मानव आकृतियों
तथा उन्हें एक प्रकार का ताल बाद 'खड़ताल' बजाते हुए देख सकते हैं। हालांकि हम
यह नहीं जानते कि प्रागतिहासिक काल में जो लोग इसे बजाते थे, वे इसे किस नाम से
पुकारते थे।

20. Castanet Players, Painting, Bhimbetka, Madhya Pradesh

From early paintings from the Bhimbetka caves we see figures
dancing and playing a type of castanets—the Khartal.

However, we do not know what they were called by the people who
used these in the prehistoric times.
21. Jhanj Player, Konarak, Odisha

In the Sun temple of Konarak, Odisha, we see this large sculpture nearly 8 ft. high of a lady playing the Jhanj.
22. भैरवी रागिनी, मालवा, 1680 ईसवी सन्

इस चित्र में रागिनी भैरवी को दर्शाया गया है, जो सामान्यतः पूजा के एक दृश्य का चित्रण करता है। चित्र में संगीतकार ढोल बजा रहे हैं। गर्भ-गुह के एकदम बाहरी हिस्से में एक घण्टा और एक शंख दिखाई दे रहे हैं। यहां तक कि आज भी अनेक मंदिरों में दर्शन से पहले और दर्शन के समय धार्मिक गीत गाए जाते हैं। संगीतकार देवी के समर्पण वाद्य बजाते हैं, गीत गाते हैं और नृत्य करते हैं।

22. Bhairavi Ragini, Malwa, 1680 A.D.

This picture shows the Ragini Bhairavi which usually portrays a scene of worship. Musicians playing on a drum, a gong and a conch are seen just outside the Garbha Griha. Even today in many temples, devotional songs are sung before and at the time of darshan. The musicians play instruments and sing and dance before the deity.
23. अलंकृत मिढी का घड़ा

भारत के कुछ भागों में मिढी के पढ़े को संगीत वाद्य के रूप में प्रयुक्त किया जाता है। यह वाद्य लोक तथा जनजातीय संगीत के साथ ताल की संगत देने हेतु प्रयोग में लाया जाता है। देश के कई भागों में घड़े के मुंह पर ताल देने हेतु हाथों से घास दी जाती है।

23. Decorated Mud Pot

In several parts of India, the Mud Pot is used as a musical instrument. It provides percussion accompaniment for Folk and Tribal Music. In many parts of the country, the rim of the mouth of the pot is struck with the hands to provide rhythm.
24. घटम्

केवल भोजन पकाने, अनाज तथा पानी एकजित करके रखने के लिए प्रयोग में लाए, जाने वाले गटमों (बर्तनों) ने भी संगीतकारों को कल्पना को जागूत किया है। आज कर्नाटक संगीत के मंच प्रदर्शनों में विशेष प्रकार की मिठी से बने तथा सावधानी से पकाए गए बर्तन ने संगीत में अपना एक विशेष स्थान बना दिया है। इस पात्र को 'घटम्' के नाम से जाता जाता है। इस विशेष रूप से पकाए गए मिठ्ठे के घड़े को अक्सर उत्साह करके बजाया जाता है। बजते समय इस पात्र के मुख को वादक के पेट पर रखा जाता है। कुछ वादक बजाते हुए घड़े को अपने सामने रखते हैं और बजाते हुए, जोरदार पर अंगुली से तलाव देते हैं। घटम् यह एक तथा वाद्य संगीत बो संगीत प्रदान की जाती और घटम् पर कर्नाटक ताल शैली के कठिन ताल संपेक्षणों को बजाया जाता है। जाने-माने घटम् वादकों में के एस. मंजुनाथ व टी एच. विनायक रामन का नाम लिया जा सकता है।

24. Ghatam

Pots which are extensively used for cooking, storing grains and water, also inspired the imagination of the musicians. Today, pots made of special clay and carefully burnt find a place in concerts of Karnataka music. Known as the Ghatam, this specially baked mud pot is mostly held upside down with the mouth of the pot on the belly of the player. However, some musicians prefer to keep the pot before them while tapping the surface with the fingers for playing. The Ghatam accompanies both vocal and instrumental music and intricate rhythmic combinations of the Karnataka tala system are produced on this instrument. Noted artists performing on the Ghatam today are K.S. Manjunath and T.H. Vinayaka Raman.
MUSICAL INSTRUMENTS OF INDIA

India is the inheritor of one of the most ancient and evolved music systems in the world. The continuity of the musical traditions of India is established through a study of musical texts and numerous visual references one finds of musical instruments in painting and sculpture from prehistoric times to the present day.

The earliest evidence of music activity is found on the walls of cave paintings at Bhimbetka and in several parts of Madhya Pradesh, which were occupied by man approximately 10,000 years ago. Much later, in the excavations of the Harappan Civilization also, evidence is available of dance and music activity.

Musical instruments are the tangible and material representation of music which is an auditory art. A study of these helps in tracing the evolution of music and also explains many aspects of the material culture of the group of people to which these instruments belong. For instance, the hair used for making the bow, the wood or clay used for making the drum, or the hide of animals used in the instruments, all these tell us about the flora and fauna of a particular region.

The Tamil word for instrument—Karuv is found in Sangam literature of the 2nd to 6th century A.D., the literal meaning of which is ‘tool’. This is extended to mean instrument in the context of music.

Very ancient instruments may be seen as an extension of the human body and we find even today, sticks and clappers. Dried fruit rattles, the Kaniyani Danda of Oraons or the dried berries or shells tied to the waist are used for producing rhythm, even today.

The hand was referred to as the Hasta Veena, where the hands and fingers are used to show the notation system of vedic chanting, coordinating sound with mudra—hand gesture.—hand gesture.

In the Natya Shastra, compiled by Bharat Muni dated 200 B.C.-200 A.D., musical instruments have been divided into four main categories on the basis of how sound is produced.

(i) The Tata Vadya or — Stringed instruments
   Chordophones
(ii) The Sushira Vadya or — Wind instruments
   Aerophones
(iii) The Avanaddha Vadya — Percussion instruments
   or Membranophones
(iv) The Ghana Vadya or — Solid instruments which do
   not require tuning

In this package we shall see a few wind and percussion instruments. India has a large variety of such instruments and only a few have been selected keeping in mind representation of the various categories.

The aim of producing the package is:
   —to establish the continuity of musical traditions of India;
to study the evolution of music through depiction of musical instruments in paintings, sculptures, wherever possible;
to study the inter-relationship of rural and sophisticated urban art forms;
to understand the underlying principles of sound production based on the structure of the instruments and the material used;
to establish the inter-dependence of different disciplines of creative expressions;
to relate the study of music to:
- Geography—flora and fauna
- History—introduction of various styles of music and types of musical instruments in different periods in history;
- Language—description of musical instruments, and the literary content in music;
- Science—principles underlying production of sound, frequency of vibrations, intervals, musical notes.

In part of the package on Musical Instruments of India we saw a few examples of Tata Vadya or stringed instruments. In this package we shall see some photographs and drawings of instruments of the other three categories, that is, the:

**Sushira Vadya**—Wind instruments

**Avanaddha Vadya**—Percussion instruments

**Ghana Vadya**—Solid instruments which do not require tuning

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### Sushira Vadya

In the Sushira Vadya group, sound is produced by blowing air into an hollow column. The pitch of the note is determined by controlling the air passage and the melody is played by using the fingers to open and close the holes in the instrument. The simplest of these instruments is the flute. Generally flutes are made of bamboo or wood and the Indian musician prefers these due to the tonal and musical attributes of these materials. However, there are references of flutes made of red sandalwood, black wood, cane, ivory, bronze, silver and gold also.

The diameter of the bamboo flutes is usually about 1.9 cms; though, flutes with wider diameters are also commonly used. The musical text *Sangeet Ratnakar* written in the 13th century by Sharangdev refers to 18 kinds of flutes. These categories are based on the distance between the blow hole and the first finger hole (see diagram).

Excavations of the Indus civilizations have shown bird whistles of clay, and seals which show wind and percussion
sirpi samayta kii chhuttaii me murtiikah shilpa (mishri) kii banti pashi ke aakar ke sambandh ke aur muhur panna har hii jo hava aur taal vadhii ko prashashit karthi hai. bhanga, laukdii taar parshii ko khalii aadii se banaye gaa, sangeet vadhaa kiute bhi sampar tak rakh le hii, ye nash haatii hai. yehii karan hai ki laukdii ya bansa ki banti baisuniai samay ke aapakat ko nahi sah padii. isii karshita samay pehla shabdi ko ki kisi chhuttaii mei ye vadhapraapta nahi hotii.

yehii bade mei 'vendii' narmadh vadh kii uttampraka praptightii hotii, jisii rajkii ko gudhan taar mantrochavan samay sambhane ki liye bagna jataa thaa. bade mei 'nadi' narmadh baisuniai ke ek prakar ka bhi uttama prada hotaa thaa. baisuniai ke swastik samay hai, jaise uttar bharat mei vendii, vaisali, baisuniai, suratli aadiv aur dasam bharat mei pilnakrojii aur koalii.

bharatii ko utarar ki aaghar par motii toor par sufiqh akshar vadhew vadhone ko dha varoi mei banta jaa sakta hii

— baisuniai
— karamako yudh vadh

baisuniai

aksar baisuniai abhva dhahe baisuniai kevata ek krokhkii nalika ke saath, swar ko ondhaa ko prashashit kartii ke liye anandii sashane ke dhriti vadhii hoti hii. aati baisuniai deha ke bhuta se bhaagon mei prashashita hii. tamaat, sapat, bhaut vadh vaisalii baisuniai ko nicha (mand) samak ke aalap jaise gati ke lal-samichii ko bajane ki liye prastwik kaya jataa hii.

chhote aur kama lalbar vaisali baisuniai ko, jinhe kha-bhaamal lalbash (urdhivah) prakaap jataa instruments. Actual musical instruments are made of bamboo, wood, animal hide, etc. which perish when buried for any length of time, hence, flutes made of wood or bamboo have not survived the ravages of time and are not found in excavations of past civilizations.

There is reference in the Vedas to an instrument—the Venu which was used as an accompaniment to chanting and recitation. There is also mention of a kind of a flute called the Nadi. The flute has a variety of names like Venu, Vamsi, Bansuri, Murali and so on in the north, and Pullankuzhal, Pillankarovi and Kolalu in the south. The wind instruments are roughly divided into two categories on the basis of how sound is produced. They are:

— the flutes, and
— the reed instruments

Flutes

Single or double flutes with only one hollow tube with finger holes for controlling the pitch of the note are very common in many parts of the country. Long horizontal flutes with a larger diameter are used to play slow passages such as Alap of the lower registers. Smaller and shorter flutes, sometimes held vertically, are used for Taans, the faster passages, and also for producing higher pitches of sound. The double flutes are mostly played by musicians of the tribal and rural areas and are rarely found on the concert platform. They resemble beak flutes which have a narrow aperture at one end. One finds references to these types of instruments in the sculptures of the first century in the Sanchi Stupa which shows a musician playing on a double flute.
है, हुत ृति के स्वर पुष्प आत्मात्व तान तथा ध्वनि के उच्च स्तर पर को बनाने के लिए उपयोग में लाया जाता है। कहीं बांसुरिया अक्षर आदिमात्र तथा प्रारंभिक क्षेत्र के संगीतकार द्वारा बनाई जाती हैं और ये घुं-घुं के मूल में बहुत कम दिखाई देती हैं। ये बांसुरिया घोंघों के बांसुरियों से मिलते-जुलते होती हैं, जिनके एक सिर बनाने पर संकर फिर होता है। हमें इस प्रकार की बांसुरियों का उल्लेख राजस्थानी के सांख्य के स्तरों के विषय में प्राप्त होता है, जिसमें एक संगीतकार को दोहरी बांसुरी बनाने के लिए दिखाया गया है।

कथिका वाय

कथिका या सरकड़ा गुंबड वाय जैसे शहनाई, नादन्वरु, आदि वायों में वाय की मध्यस्थ नलिका के भीतर एक अयोग्य दो कथिकाओं को डाला जाता है, जो हवा के भर जाने पर कम्पनित होती है। ये वायों के अंतर्गत कथिकाओं की नलिका के भीतर दालने के लिए एक राह, एक अंगर बना जाता है। नलिका शंकु के आकार की होती है। यह हवा भरने वाले सर के तरफ से संकर होती है और धीरे-धीरे दूसरे सर पर खुली होती जाती है तथा एक पात्र की पट्टी का आकार ले लेती है, ताकि ध्वनि के प्रभाव को बढ़ाना जा सके। वाय के पुए से एक अर्णिक नलिकाओं का समूह और कथिकाओं को लाभ करने तथा व्यवस्थित रखने के लिए हाथों में अन्य बांसुरी की एक सुई लेकर जाती है।

अवनद्र वाय

वायों के लिए, अवनद्र वायों (ताल वाय) में पश्चि की खाल पर आयात करके ध्वनि की उत्पादन की जाती है, जो भीति, धाट तथा भारी के बीतन पर फिर लकड़ी के ढोल या ढोंग दे अपने ऊपर खिच कर लगायी जाती है। हमें ऐसे वायों के प्रवीण उल्लेख देने में मिलते हैं। बांसुरियों में धूम पूर्ण का उल्लेख है। यह भीति पर खुला हुआ एक खोल रखकर जाता है, जिसे बांसुर या भीति का खाल से खिच कर ठंडा जाता है। इस गद्दे के खल ठंडे हिस्से पर आयात करने के लिए पश्चि की पूर्ण का प्रयोग में लाया जाता था और इस प्रकार से ध्वनि के उत्पत्ति की जाती थी।

ढोलों की उपस्थिति, ढांचे तथा बंजारे के लिए उन्हें रखे जाने के ढौँ व नियम के आधार पर विविध वर्गों में बांटा जा सकता है। ढोलों को पुढ़ा: उच्च, अंकाम, आलिल्या और ढ्रु (ढोलों का परिक्षण) - इन चार वर्गों में बांटा है। (देखें इक्की)

उच्चक

उच्चक ढोलों को वायक के समस्त लघुत्व रखा जाता है और इन पर डिडंडों या फिर उंगलियों से आयात करने पर ध्वनि उत्पन्न होती है। इनमें पुढ़ा है-ढोल की जोड़ी और ढ्रु।

अंकाय

अंकाय ढोलों को वायक के समस्त आयात रखा जाता है और अक्सर इसके ढोल के दोहरे सिरे पश्चि की खाल से ढोले जाते हैं। उंगलियों अपनी डिडंडों से ढोलों और आयात करने पर इनमें ताल उत्पन्न होता है।

Reed instruments

Reed instruments like the Shehnai, Nadaswaram, etc., have one or two reeds inserted in the hollow beak or tube of the instrument, these vibrate when air is blown into them. In this type of instrument the reeds are bound together with a gap between them before inserting into the body of the instrument. The body of the tube is conical in shape, narrow at the blowing end and opening out gradually with a metallic bell at the farther end to enhance the volume of the sound. A set of spare reeds, an ivory or silver needle for adjusting and cleaning the reeds are also hung from the mouth piece of the instrument.

Avanaddha Vadya

In the Avanaddha Vadya category of instruments, sound is produced by striking the animal skin which has been stretched across an earthen or metal pot or a wooden barrel or frame. The earliest references to such instruments have been found in the Vedas where there is mention of Bhumis Dundubhi; this was a hollow pit dug in the ground and covered with the hide of a buffalo or ox which was stretched across the pit. The tail of the animal was used for striking the animal hide and thus sound was produced.

Drums have been divided into different categories on the basis of their shapes and structure as also the position and placement for playing. The main categories are—Oordhwaka, Ankya, Auninga and the waisted or the Damaru family of drums. (see diagrams).

Oordhwaka

The Oordhwaka drums are placed vertically before the musician and sound is produced by striking them with sticks or the fingers. Prominent among these are the Tabla pair and Chenda.
Ankya

The Ankya drums are held horizontally before the musician and usually both sides are covered with animal hide. Sound is produced by striking both sides with sticks or fingers. Today, in this variety, the Mridangam, Pakhawaj, Khol, etc. are prominent. The musician may sit on the floor and play the instrument or hang it from the neck while dancing or standing. Seals which have been excavated of the Indus Civilization show figures of men playing the horizontal drums hung from the neck.

Alingya

The third variety are the Alingya drums. These drums have the animal hide fixed to a wooden round frame and are embraced or held close to the body with one hand while the other hand is used for playing on the instrument. Under this category, the Duff, Dufflies, etc. are very popular.

Damaru types

Another prominent group of drums are the waistied or Damaru variety. The instruments in this category range from the small Huddaka of Himachal Pradesh to the larger instrument known as Timila of the southern region. The former is struck with the hands while the latter is hung from the shoulders and played with sticks and fingers. These are also known as the hourglass variety of drums as their shape resembles an hourglass.

Ghana Vadya

The earliest instruments invented by man are said to be the Ghana Vadya. Once constructed, this variety of instrument do not need special tuning prior to playing. In early times these instruments were the extension of the human body such as sticks, clappers, rods, etc. and were also closely related to objects of utility in daily life such as pots and pans, jhanj, talams, etc. They are principally rhythmic in function and are best suited as accompaniment to folk and tribal music and dance.
Some of the general activities mentioned in Musical Instruments of India, Part I are relevant for this package also.

Additional activities related to Musical Instruments of India, Part II are listed below.

The aim of the activities is to create an understanding and appreciation of music and to acquaint the students with the history and evolution of some musical instruments through their representations in painting and sculpture.

1. The study of musical instruments can be an effective activity. The three categories of instruments depicted in this package can be studied with a scientific approach so that the students can gain a better understanding of them.
   - what are the salient features of each category of instruments?
   - what material has been used to make the instrument?
   - what effect does the material have on the sound produced?
   - how is the sound produced?
   - what effect do the shapes and sizes of instruments and the thickness of material used have on the sound?
   - how have simple instruments evolved into more sophisticated concert instruments?

On completion of similar studies, students will be able to distinguish each category of instrument and know various details regarding them.

2. In Indian dance forms there are a variety of gestures depicting musical instruments. The students can study the body postures and gestures for playing on instruments like the veena, mridangam, damaru, cymbals, clappers, etc. There can be more than one gesture to represent a single instrument. Charts with drawings, pictures and photographs can be prepared. These will show how well an action or gesture can depict an instrument.

3. Wind instruments are commonly used even today in many parts of India. After studying the Bhimbetka paintings, students may be asked to note down the approximate length, shape and design of the instrument depicted. They should then try and recollect where they have seen this instrument and on what occasions, for example, the trumpet in wedding processions or the one heralding a lezim show. They can be asked to draw the instruments and write a paragraph describing the occasion when it was used. This exercise will also help the students to develop their narrative and descriptive skills in language.
4. Snake charmers, all over India use more or less the same tune. Students may be asked to learn one of these simple tunes and then note it. They can then try and represent the movement of the tune in a diagram using curves and lines. What kind of mood does the tune suggest?

5. Hollow bamboo tubes of different sizes can be given to students and they can make their own flutes. It will be interesting for the students to study the difference in pitch of each flute.

6. Students can be asked to prepare simple musical toys in order to test the effect of various materials on the sound produced.

   On a ring of bamboo, two thin papers can be stuck on either side. A stick can be fastened as a handle. Two threads with beads can be attached to it. On rotating the stick, the beads hit the paper sides and produce a rhythmic sound. By experimenting with different types of paper of varied thickness, different pitches of sound can be produced. This will help students to understand the underlying principle in the making of drums.

7. An interesting feature of some instruments is that they are an extension of the human body. This reflects a very keen use of man’s imagination in making and designing these instruments. A list of instruments or accessories which can be called extensions of the human body may be prepared and explanations given, for example, Kollatam sticks are an extension of the arms. This can motivate students to try and invent similar instrument themselves.

8. In order to appreciate and to get to know the variety of drums that we have in India, a chart may be prepared giving the names of drums under each category. If it is possible, recordings of Tata-Vadya Kachers and Jugal-bandis can be collected in order to give the students an exact idea of the use of instruments and to note the minor differences in sound quality.

9. For those interested in music, choirs and orchestras can be started in the school.

10. Students can learn to sing and play the following:
   - songs in regional languages on a variety of themes
   - devotional songs
   - songs for various festivals and ceremonies
   - songs connected with different occupations, for instance, songs sung by boatmen, cowherds and farmers
   - songs related to the agricultural and life cycles.
   - recitation of a few tales of Hindustani and Karnataka music by giving the rhythm and beats with their hands.

11. Students can set up their own orchestras in the school by improvising instruments made of waste material such as wood, metal, etc. They can experiment on the variety of pitches and rhythms that can be produced.
8. भारतका मुस्ताजियः

नाममात्रम् द्रिति प्रदेश का नारसायक शहरात्मक से बहुत कुछ मिलता-जुलता आया। यह यात्रा छोटा होने के लिए, यह विश्व से समय दर्जा आया। डायरेक्ट हेडार्ड ने बहुत कुछ मिलता-जुलता का पहली भांति होने के संशय दर्जा आया।

इसके अनुसार के प्रभाव को जानने से पहले की दृष्टि में, कुछ मिलता-जुलता का पहली भांति आया। यह यात्रा किसी ने जानने से पहले की दृष्टि में, कुछ मिलता-जुलता का पहली भांति आया।

स्थानीय के अनुसार यहां के अनुच्छेद व वाचन के संबंध में स्थानीय का प्रभाव आया।

9. पूर्ण देवी

पूर्ण देवी का अहम तरीका तथा जासोसी के साथ का संगठन दीयों का प्रेमधार्म आया।

इस पूर्ण देवी का अहम तरीका तथा जासोसी के साथ का संगठन दीयों का प्रेमधार्म आया।

10. शुभांग, भूमिकेता, सिव, भगवान

पूर्ण देवी का अहम तरीका तथा जासोसी के साथ का संगठन दीयों का प्रेमधार्म आया।

इस पूर्ण देवी का अहम तरीका तथा जासोसी के साथ का संगठन दीयों का प्रेमधार्म आया।

11. तथ्यानुसार

तथ्यानुसार दोनों लघुपति दोनों का समथुमत आया। इसके दृष्टि से हिंसा का प्रकार शरीर का संगठन दीयों का प्रेमधार्म आया।

तथ्यानुसार दोनों लघुपति दोनों का समथुमत आया। इसके दृष्टि से हिंसा का प्रकार शरीर का संगठन दीयों का प्रेमधार्म आया।

12. जनम योग, भ्रमण भाषाओं

इसके प्रति शरीर का संगठन दीयों का समथुमत आया।

इसके प्रति शरीर का संगठन दीयों का समथुमत आया।
19. बुध का ताराक्रम (वनस्पतिक) द्रवक्रम के आधिकारिक प्रयोग का यथास्थिति है। वह एक गोलाकार तथ्यों का चाभा होता है, जिसके एक ऑर पशु की खाता (क्रियाकलाप) में रहती है। इस तथ्यों-क्रियाकलाप में नीचे या उत्तर एक हाथ से किये जाने का उपर कर्म पकड़ा जाता है। जबकि दूसरा हाथ गोल्प देने के लिए प्रयोग में लाया जाता है, तकके ताल की उपस्थिति हो सके।

20. चंद्र बादक, दिवस, पीभीबेंट्रका, एवं प्रदेश

पीभीबेंट्रका को गुरुओं के इस प्रमाणी दिवस में हम देख करते हुए कृत्रिम अवसर तथा उनके एक प्रकार का ताल पार 'चंद्रहार' देख हुए देख सकते हैं। हालांकि, हम यह नहीं नहीं जानते कि प्रागैतिहासिक काल में जो लोग इस क्रिया के दिवस के रूप में पुकारते थे।

21. ज्योति वादक, कौणक, ओडिषाका

ओडिषाके को कौणक विश्वसृष्टि में हम एक 8 फीट ऊंचा शिल्प देख सकते हैं, जिसमें एक रक्षा का झाट दिखाया हुआ पर्यावरण दिखाया गया है।

22. मद्रसी सगिनी, भावना, 1650 ईस्वी सन

इस दिवस में मद्रसी सगिनी को दर्शाया गया है, जो सामाजिक पुनर्विश्वास के एक उद्देश्य का विकास करता है। शहर में संगीतकार देशल बजा रहे हैं। गायन-गृह के एक स्वातंत्र्य हिस्सों में एक पत्थर और एक सिंदूर दिखाई दे रहे हैं। यहां तक की जाना भी अनेक बड़ी मंडलों में दर्शन से पहले और दर्शन के समय दर्शकों की गायन करते हैं। संगीतकार देशल के समने छाया बनाते हैं, गायक नाचते हैं और शृंखला करते हैं।

23. अक्षुंडन उद्धिष्ठ का पात

भारत के कुछ भागों में उद्धिष्ठ को सांस्कृतिक वाचक के रूप में प्रमुख किया जाता है। यह वाद तो यहां निर्देशित संगीत के साथ ताल की संगीत देने हेतु प्रयोग में लाया जाता है। देश के कई भागों में अपने के मुख्य पर ताल से हेतु हाथों से ध्वनि दी जाती है।

24. धर्म

केवल मौजूद पकड़ने, अनाज तथा पानी एकाधिकरण करके रखने के लिए प्रयोग में ताल जाना वाले पाठ्य (कल्पना) वै भी संगीतकारों की क्रयासृष्टि का जागृत किया है। अज बहुत संगीत के एक स्वास्थ्य क्रिया की निधि से बने तथा नापिकायी से पकड़े गए उद्धरण में संगीत में अपना एक विशेष स्थापन युग लिखा है। इस पात को 'पात' के नाम से जाता है। इस विशेष रूप से पकड़ने एवं निधि को अस्तित्व में लाने का क्रिया जाता है। जबतक समय इस पात के वास्तव को वादक के रूप में रहा जाता है। गुरु वादक बनाने हेतु पड़ सकते हैं अथवा समने रहने हैं और वादन हेतु जमीन पर उंगली से ताल देने हैं। धर्म द्वारा बने तथा वाद-संगीत को संगीत प्रदान की जाती है और धर्म पर कर्नाटक ताल शैली के बाद में ताल संस्कृति को बनाया जाता है। जानने गायन पर धर्म वादकों के केंद्र, पूर्व, दक्षिण तथा दक्षिण रियाल नयन का नाम दिखाया जाता है।
1. Wind Instruments, Painting, Bhimbetka, Madhya Pradesh

Wind instruments have been depicted in many sculptures and paintings from prehistoric times to date. This picture shows a painting in the caves from Bhimbetka near Bhopal, in Madhya Pradesh. The wind instrument shown here is a kind of trumpet, however, we do not have any information on what the cave dwellers might have named it.

2. Flute

This picture shows an artist playing on a horizontal flute. This type is best suited for playing the slower passages or the alap in Indian music and is popular on the concert platform. Prominent flutists today are Hari Prasad Chaurasia, the Sikki sisters and N. Ramani.

3. Gesture for flute in Dance forms

The gesture for playing the flute is depicted in almost all the dance styles. The position of the hands and the fingers vary in dances belonging to different regions and there are slight variations in the position of the hands for portraying the gesture in dance forms like Bharatnatyam, Kathak, Odissi, Manipuri and Kathakali. Though these dances originated in different states, they are now performed all over the country. These dance styles and many other forms are also being performed and appreciated in many countries abroad.

4. Traditional Kalighat Painting, 19th Century

Krishna as the flute player has been depicted in paintings in numerous styles all over the country in different periods of time. This picture shows Krishna playing the flute with Radha standing beside him. This is a Kalighat painting of West Bengal which is known for its bold drawing of figures and dramatic use of colours.

5. Gita Govinda, Painting, Krishna with Radha, early 18th Century

Krishna as a flute player is a well-known theme of Indian painting. This painting is from the illustrated manuscript of Gita Govinda of early eighteenth century. In this picture, Krishna is playing the flute while Radha is holding a lotus in her hand.

6. Algoza

The Algoza from Punjab and other parts of North India is an interesting variety of the double flute. Two flutes may be tightly fixed to each other or the two can be held loosely in the hands. They are blown into simultaneously, though, one of them provides only the drone or base note while the other is used for playing the melody. Similar to the Algoza but slightly longer and of a different pitch is an instrument mostly found in Rajasthan known as the Sarara.

7. Shehnai

The Shehnai is a reed instrument in which there are seven holes along the tube which are used for playing the melody by opening and closing them with the fingers. It is known as a Mangal vadya and is usually played on auspicious occasions in north India such as marriages, temple festivals, etc. The Shehnai is considered to have come to India from West Asia. There are other scholars who believe that this instrument travelled to China from India. It is now a popular instrument in concerts, the sound is very sweet and suited for playing Raga Sangeet. In the early fifties of this century, Ustad Bismillah Khan was credited for popularising this instrument. Today, Pandit Anant Lal, Pandit Daya Shankar are also known Shehnai players.

8. Nadaswaram

Very similar to the Shehnai, the Nadaswaram or Nadaswaram of the southern region is, however, a larger instrument and is mostly suited for playing outdoors in marriage processions and temple functions. Due to its size, the sound produced is much louder than the other instruments of the family of reed instruments. This reed instrument has, apart from the seven holes for playing the melody, an additional five holes along the bottom of the tube. These are not used for playing but for adjusting the basic pitch, one or more of these holes can be plugged with wax. The accompanying percussion instruments with the Nadaswaram are the tavil, mridangam, maddalam or chenda.

The word Nadaswaram in the South refers both to the snake charmer's pipe (Pungi Been in North India) as also the double reed instrument popular at temple functions, marriages, etc. and now played in concerts as well.

9. Pungi Been

The construction of the Pungi Been, more commonly known as the snake charmer's pipe is quite interesting. A tube is inserted into a gourd. This is used for blowing air which collects in the gourd making it pass through two bamboo or reed pipes, which are inserted into the lower end. Both pipes produce sound, but one produces only the drone (as in the double flutes) and the melody is played on the other pipe by controlling the passage of air through the finger holes.

10. Masked Dances, Bhimbetka Painting, Madhya Pradesh

All over the country, drums provide rhythmic accompaniment to group dances being performed in the rural and tribal areas. Masked dances are very popular even today, the masks from different parts of the country have their own regional peculiarities. This painting from the Bhimbetka caves of Madhya Pradesh which is 5000 years old shows a group of dancers.

One dancer is wearing a mask and others are playing the horizontal (Ankya) and the embraced (Alingya) type of drums.

11. Tabla

The Tabla pair is a set of two vertical Oordhwakur drums. The right side is called the Tabla and the left, the Bayan or Dagga. The Tabla has a wooden body with a covering of animal skin, this is held together with leather straps. Between the straps and the wooden body, oblong wooden blocks are placed. These are used for tuning the drums. There is a syahi paste applied in the centre of the animal skin, the tabla can be tuned accurately by striking the rims with a hammer. The body of the bayan is made of clay or metal and is covered with animal skin which also has syahi paste applied on it. Some musicians do not tune this drum to an accurate pitch.

The tabla pair is used as accompaniment to vocal and instrumental Hindustani music and with many dance forms of northern India. The complicated talas of the Hindustani music are played with great virtuosity on the tabla. Prominent musicians playing the tabla today are—Ustad Alla Rakha Khan and his son Zakir Hussain, Shafat Ahmed and Samata Prasad to name a few.

12. Ajanta Drums, Sculpture, Maharashtra

Apart from textual references, representations of musical instruments are to be seen in sculptures and paintings from prehistoric times to the present day. The first century sculpture of Ajanta shows a musician sitting behind a pair of vertical drums. These resemble the Tabla and Bayan pair that we see on the concert platform today.

13. Chenda

This variety of Oordhwakur drum is very popular in Kerala and some parts of Karnataka. It is a vertical drum made of hollow wood with a covering of skin tied together with ropes. Notice that leather straps are not used in this instrument. The tuning is done by tightening the ropes and striking the rims with a hammer. It is played by using a stick and the fingers. It is one of the prominent percussion instruments used in Kathakali dance, Yakshagana performances and many other traditional and ritual dance and theatre forms of the region.

14. Nagara

The Nagara is a variety of small vertical drums which usually provides accompaniment to folk music. Scholars believe that the name of the drum has been derived from nakkara from Western Asia. Many Shehnai players use the nagara drums along with the tabla pair to provide rhythmic accompaniment in their concert performance. The nagara pair are two conical drums. They are of different sizes, the smaller referred to as jheel or madi and the larger as Nar. Because of the difference in size, the volume and pitch varies in both drums. Since the Nagara pair is smaller in size, it is easily portable and is seen carried on backs of camels, horses etc.

15. Mridangam

The Mridangam is one of the most ancient drums in India used today on the concert platform. As the name suggests this drum must have been made of clay, Mrit, i.e. clay. It usually provides accompaniment to vocal and instrumental music and dance forms of the southern regions. The structure of the modern Mridangam is very simple. The animal hide covers the two open ends of a hollow wooden barrel. These are joined together by leather straps which can be tightened to suit the required pitch. The right hand side of the instrument has a permanent loading which is known as syahi. It is a combination of iron filings, glue, soot, etc. The black paste is applied to the animal skin, to allow for malleability of the sound. Normally when the stretched skin is struck, the sound produced has no resonance and is harsh to the ears. The application of this syahi makes the sound mellow. The left face is usually blank, but prior to playing, a paste of dough is applied to it. The instrument is held before the musician who sits on the floor. The most intricate talas of the Indian music are played on this instrument.

Paikhat Raghu and Umayalapuram Sivaraman are popular artists of this instrument.

16. Pakhawaj

The Pakhawaj is one of the most ancient drums of north India. It is a wooden barrel drum bulging in the middle and tapering towards the end. The animal skin placed on both open ends is held together with leather straps and beneath these are placed cylindrical wooden blocks. These are used for tuning. The Mridangam of south India does not have these cylindrical wooden blocks. Finer tuning is done by striking the rim with a hammer. The playing position is similar to that of the Mridangam, whereas the instrument is placed in front of the musician, who plays on both sides to provide rhythm. One side is covered with black paste—syahi, and the other has a temporary application of dough applied just before playing. The instrument accompanies vocal and instrumental music and the most elaborate and sophisticated style of singing known as Dhrupad and Dhamar. It is a popular instrument on the concert platform and also provides rhythm in dance forms such as Kathak and Odissi. A senior Pakhawaj player is Pandit Gopal Das.

17. Raga Meghamalhar, Mewar, 18th Century

Raga Meghamalhar is a seasonal melody and is sung or played in the rainy season. Many ragas have been visualised and painted under the Ragamala series in different schools. In this picture, you see dark clouds on a rainy day, the peacock and
the dancer playing on the 'ankya' variety of the horizontal drum while she dances.
The rainy season is important throughout India as it brings welcome relief from the dry hot summer. The agricultural society, dependent on the rain for irrigation of the fields also looks forward eagerly to the rains.

18. Musician, Surya Mandir, Konarak, Odisha
In the Surya Mandir of Konarak, Odisha, there are many sculptures of musicians and dancers, shown sometimes in groups and sometimes, as in this sculpture, a single dancer. Here you see her playing on a horizontal drum. Notice her feet and hand positions which are similar to those found in some dance forms prevalent in India today.

19. Duff
The duff belongs to the category of barrel frame drums of the Alingya group. The structure is a circular wooden frame covered with skin on one side. It is sometimes held under the arm or lifted above the shoulder with one hand while the other hand is used for striking it for producing the rhythm.

20. Castanet Players, Painting, Bhimbetka, Madhya Pradesh
From early paintings from the Bhimbetka caves we see figures dancing and playing a type of castanets—the Khartal.

However, we do not know what they were called by the people who used these in the prehistoric times.

21. Jhanj Player, Konarak, Odisha
In the Sun temple of Konarak, Odisha, we see this large sculpture nearly 8ft. high of a lady playing the Jhanj.

22. Bhairavi Ragini, Malwa 1680 A.D.
This picture shows the Ragini Bhairavi which usually portrays a scene of worship. Musicians playing on a drum, a gong and a conch are seen just outside the Garbha Griha. Even today in many temples, devotional songs are sung before and at the time of darshan. The musicians play instruments and sing and dance before the deity.

23. Decorated Mud Pot
In several parts of India, the Mud Pot is used as a musical instrument. It provides percussion accompaniment for Folk and Tribal Music. In many parts of the country, the rim of the mouth of the pot is struck with the hands to provide rhythm.

24. Ghatam
Pots which are extensively used for cooking, storing grains and water, also inspired the imagination of the musicians. Today, pots made of special clay and carefully burnt find a place in concerts of Karnataka music. Known as the Ghatam, this specially baked mud pot is mostly held upside down with the mouth of the pot on the belly of the player. However, some musicians prefer to keep the pot before them while tapping the surface with the fingers for playing. The Ghatam accompanies both vocal and instrumental music and intricate rhythmic combinations of the Karnataka tala system are produced on this instrument. Noted artists performing on the Ghatam today are K.S. Manjunath and T.H. Vinayaka Raman.