

Archaeology



Musical Instruments from Pallava Sculpture
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We are very fortunate in South India to have a [rich](#) and long tradition of music and dance which had developed over a period of two thousand years. Music was and is part of the life of the people. From ancient literature and from technical works on music we know of a variety of musical instruments that were used in the past. At Amaravathi in Andhra Pradesh we have the famous limestone sculptures and bas-reliefs which have representations of musical instruments of the second century A.D. The earliest graphical representations of Tamilnadu go back to the period of Pallava King Mahendra who excavated rock-cut shrines around 600 A.D. The beautiful rock-cut sculptures of Mahabalipuram belong to the post-Mahendra period of 630-680 A.D. We have the sandstone sculptures of Kailasanatha temple of Kanchi of Rajasimha period of 700-720 A. D. and the sculptures of Vaikuntha Perumal of Kanchi of the late eighth century. In this study we shall confine ourselves to the period 600-800 A.D.

It is possible to get a picture of the variety of musical instruments that were in use in Tondainadu, the Pallava country, during the seventh and the eighth centuries by a careful study of the Pallava sculptures of that period. The musical instruments are represented as being played by deities, by other celestial beings¹ and musicians. There could have been other musical instruments of that period which have not found a place in the surviving sculptures.

WIND INSTRUMENTS

Even a casual visitor to Mahabalipuram would notice the depiction of a long flute in the Krishna mandapa (Fig.1) where a cowherd² without any ornaments is shown as playing a transverse flute. There is a Tamil tradition that cowherds [used flutes](#) fashioned out of the long cylindrical pods of the Golden Cassia tree.³ Here the

flute is a typical folk instrument and such instruments were often fashioned by the musicians themselves.

The classical concert flute was made of either bamboo, metal or wood. The quality of the [wood and metal](#) instruments would depend on the skill of the craftsmen and the available technology in wood and metal work. Unlike a bamboo flute which uses a natural hollow cylinder, for a metal or wooden flute the craftsmen will have to first fashion a hollow cylinder of proper dimensions. The dimensions of the standard flute⁴ are given in an ancient Tamil text called *Pancha Marapu* rediscovered only a few years ago.

At the Kailasanatha temple there are many examples of flute-playing in musical groups that accompany the dancing Siva. The instrument is held transversely either on the right or the left side. An ensemble often has a flutist or a vina player, a drummer and a cymbalist. At the Vaikuntha Perumal temple we find the flute player in ensembles accompanying a court dancer. It is not always easy to make out from the sculptures more details about any instrument. One can notice the difference in length between the flutes but one is not sure how accurately the sculptor represented the instrument with regard to thickness, length and the position of the holes. The short thick flutes probably had fewer holes than the long flutes.



Fig 1. Cowherd playing a long flute -- from the Krishna mandapa in Mahabalipuram



Fig. 2 A conch-blower from the Ollakaneswara temple at Mahabalipuram



Fig. 3. A fretless Veena with gourd-like resonator, held by Ardhanareeswara, Kailasanatha temple, Kanchipuram.



Fig. 4. Fretless Veena with a spiral end, Kailasanatha temple, Kanchipuram



Fig. 5. Drone instrument from the Dharmaraja Ratha, Mahabalipuram. A



Fig. 6. A flute from the Kailasanatha temple, Kanchipuram. The upper portion is damaged.

gourd is fixed longitudinally at the lower end of the stem.



Fig. 7 A bowed instrument from the Kailasanatha temple, Kanchipuram



Fig 8. A drummer playing on two vertical drums. On his forehead is an axe blade, the emblem of Siva commonly found on the doorkeeper figures of Saivaitic shrines. The dwarf figures play on the flute and the cymbals as accompaniment to the dance of Siva depicted on a nearby panel.



A dancer accompanied by a pot-drum.



A drum with straps.



Fig. 9. Dancing Siva holding a tiny hand-drum, vertically—Kailasanatha temple, Kanchipuram



Fig. 10. A small pot drum from the Pandya rock-cut temple in Kalugumali. One such drum is depicted in the Vaikuntha Perumal temple.



Fig. 11. A celestial musician with a pair of small cymbals

One normally takes for granted that the flute is always used for producing the melody but in certain folk traditions such as those of the Narikorava tribe of Madras the flute is used to accompany the singer who carries the melody. The flutist mainly

maintains the rhythm by repeating a sequence of just three notes⁵ throughout the performance.

We do not come across any other wind instrument except the conch shell (Fig. 2) which is depicted as blown by dwarf figures⁶ and held by deities as emblems. The conch is also shown at the top of the head-dress of door-keepers of Vishnu shrines. In battle fields it was blown hard to scare away the opponents. There is no representation of the beaked flute which is blown straight through the beaked end. Neither does one see any instrument resembling the Nadaswaram, the reed instrument. There are no examples in the Pallava sculptures of the hunting horn and the trumpet both of which are commonly seen in sculptures found on the later Vijayanagar structures and kalyana mandapas of the sixteenth century.

STRINGED INSTRUMENTS

There are many kinds of stringed instruments which are represented in South Indian sculptures and a variety of instruments are mentioned in classical literature. However it is difficult to work out a one-to-one relationship between the sculptural representation and the literary description for all the instruments.

Attempts have been made in the past by scholars⁷ to reconstruct the instruments mainly on the basis of literary evidence but without any reference to contemporary sculptural representations. From the same description entirely different types of instruments have been visualized by the different scholars.

In literature both the words *yazh* and *veenai* were used to represent a family of stringed instruments. The word *vina* stood for harp-like instruments such as the hundred-stringed *Sata tantri vina* as well as the lute-like instruments like the modern *vina*. It is quite likely that the harp-like instrument found in Tirumayam was *themakara yazh*. The straight-stemmed *sem kottu yazh* is mentioned in *Silapathikaram*. It had seven strings like the modern *vina* and it was used to accompany vocal singing, spanning three octaves. In the early Sangam works many kinds of stringed instruments are referred to as the *yazh*. The word *veenai* appears a little later and is sometimes used interchangeably with the word *yazh*.

A stringed instrument may have one or many strings as vibrators. Other things being equal, the shorter the string the higher the pitch. Polychords or the harp-like instruments have many strings with a one-string-to-one-note relationship. The sound is amplified by a resonator to which the strings transmit their vibrations. Another kind of instrument is like a lute in which each string can produce more than one note. This is made possible by pressing a string on the stem or finger board, thereby shortening the length of the vibrating string for producing different notes. The string may

transmit its vibrations to a resonator through a bridge as is done in a Guitar. Alternatively the stem itself may act like a hollow resonator as in a Zither and the sound may be amplified by an additional resonator attached to the stem. The string may be plucked by the finger or a plectrum; or a bow may be used to excite the string.

At the famous penance panel of Mahabalipuram one can spot a stringed instrument in the hands of celestial musicians.⁸ The instrument has a long cylindrical body resembling a bamboo stick and at the upper end, fixed at right angles to the stick, is a hemispherical resonator resembling a gourd. The gourd is pressed against the chest and the instrument held diagonally or horizontally across the body. One hand is used to pluck the gut, possibly at the lower end, and the other hand for stopping it at the upper end.

The same instrument is held in the hands of Siva on the Dharmaraja Ratha at Mahabalipuram.⁹ It is also found at the Kailasanatha and Vaikuntha Perumal temples. It is also shown as being carried about over the shoulder, but the bottom of the gourd seems to be open. We may infer that the gourd was pressed tightly against the chest to form a volume of resonating air. In a Kailasanatha sculpture (Fig. 3) the resonator is pressed on the Devi side of an *Ardhanarisvara*¹⁰ figure. The same kind of instrument is held in different positions with the stem in various angles but with the hollow gourd always on the chest. The tip away from the gourd has a plain or a spiral ending (Fig. 4) and this may indicate that there were two kinds of similar instruments. King Rajasimha who built the Kailasanatha temple called himself *Sri Vina Narada*¹¹ or a *Narada* on the *Vina* and the gourd instrument represented on the temple would have been called a *Vina* by the Pallavas. In Tamil, a stringed instrument associated with Siva is also referred to as a *yazh* as can be seen from *Koothanool*, an early Tamil work on dance.

This instrument has continued to be in use for many centuries and it is depicted on the kalyana mandapas and other late Vijayanagar sculptures. It resembles an instrument called the *tuila*¹² found in Orissa but believed to be fast disappearing from use in that region. We do not come across the fretted gourd *vina* on Pallava sculptures but such an instrument can be found in the ninth century sculptures of Narthamalai in the Pudukottai region. Neither do we see tuning pegs on this instrument.

The gourd *vina* was primarily a melodic instrument and both hands were used to play it. A drone instrument, on the other hand, would require only one hand to play it since the player would use only open strings. We are lucky to have a unique example of an ancient drone instrument (Fig. 5) on the eastern side of the *DharmarajaRatha*. The player stands erect with the weight of his body resting on his right foot with his left foot slightly raised, bent at the knee. He wears minimal clothing and no ornaments. His ear is not pierced in contrast to the other sculptures in the *Ratha*.

There is no necklace, no arm band or wristlet. His right hand is raised with two fingers bent and his left hand holds a stringed instrument. The middle finger is bent more than the others indicating that it is touching a string. The instrument has a vertical stem which passes through a complete bottle gourd longitudinally. He is in a posture of singing and accompanying himself on the drone. He is a minstrel and if he is identified as a *paanan* then the instrument would be called a *yazh* even though it is not harp-like.

In addition to the gourd vina and the gourd drone there is a unique representation of a flute-like instrument (Fig.6) outside of the west wall of the Kailasanatha temple. Its body is fashioned in wood and since its neck portion is damaged it is not certain whether pegs were used. A dwarf figure¹³ is shown in a sitting posture holding the lute across the body partly resting on his left shoulder. The instrument is quite different from the *drone* and the *vina*. It has a pear-shaped body like a lute where the finger board is an extension of the resonator and a bridge to transfer the vibration of the strings to the resonator. It is not clear whether the resonator had a flat or a curved back, but in the sculpture the instrument does not have much thickness. The left hand is held on the upper portion, with the fourth finger slightly bent showing that it is stopping a string. The right hand is also on the wooden resonator with the fourth and the little finger closed. It is not clear whether it is the middle finger or a plectrum that is seen in the sculpture. The dwarf has a smiling face and it is surprising that this piece in sandstone has survived for twelve long centuries.

Was bowing as an act of sound production known to the Pallava musicians? Is there any sculptural evidence to support the existence of a stringed instrument associated with a bow? There is a unique representation of a musical instrument at the Kailasanatha temple which requires close study. On the southern side of the main sanctum is a representation of Harihara at whose feet are two dwarf figures with musical instruments. One plays the cymbals. The other plays on a musical instrument (Fig. 7) which is in the form of a cylindrical rod. This instrument would produce the melody whereas the cymbals would keep time. The instrument rests vertically on the cupped palm of the left hand. On the right hand a tiny curved bow is held gently between the fourth and the fifth fingers and drawn gently across the stem. All the fingers of the right hand are kept closed. The curved bow is thinner than the fingers. The stem itself could have been a hollow resonator and this would be the fore-runner of fiddle-like instruments of India.

Some scholars may not agree with this identification of the instrument as a bowed stringed instrument.

For instance there is a similar instrument at *Kazhugumalai* in the *Pandya* country and some scholars would identify it as a *Rasp* which would make an unmusical grating noise.

What is puzzling is that we have no Pallava examples of harp-like instruments which are found in the Amaravati sculptures of the pre-Pallava period, in the Tirumayam cave temple of the eighth century, the Namakkal cave temple of the same period and the Dharasuram Chola temple of the post-Pallava period. The harps were apparently not in common usage in the Pallava country compared to the other instruments.

THE DRUMS

The drums are depicted most often in the context of a dance scene whether it be the dance of Siva or a dance by human performers. There is a depiction of a vertical drum in the Siyamangalarn cave temple of Mahendra Varman.¹⁴ Straps are shown in a criss-cross pattern. A dwarf attendant of Siva is depicted as accompanying the dancing Siva on a single vertical drum. The sculpture would be placed in the first half of the seventh century.

On the main tower of the Kailasanatha temple two vertical drums (Fig. 8) are shown near the Dancing Siva in four places. Even though the Kailasanatha sculptures show a lot of fine details like the axe-blade¹⁵ emblem on the drummer's forehead we do not see the straps that bind the membrane of the drum-head to the drum. It is quite likely that the shell was made of burnt clay and the membrane stuck to the instrument. Such instruments of burnt clay are used today by the *Villi* tribesmen living in the area around Mahabalipuram. The potters at *Pooncheri* village make the clay shells and the *Villis* cover the instruments with skin using *vajjiram* gum. The vertical drum with straps is seen at the Vaikuntha Perumal temple.

Short bulging drums held horizontally and played by the hands are seen in the Varaha cave temple at Mahabalipuram and in the Vaikuntha Perumal temple where cylindrical drums are also depicted. In some ensembles more than one drummer is seen. There is some evidence that two drums were tied together and played in the horizontal position by a single performer who carried the drums slung over the shoulder by a strap.

A tiny hour-glass-shaped drum is depicted as an emblem of Siva on the Dharmaraja Ratha and in the Kailasanatha temple. One kind of hand drum is held vertically (Fig.9) and another horizontally (Fig. 10) These are usually identified as *damaru* or *damarukam*. These are also referred to as *tudi* or *udukkai*.¹¹ Such drums are in use even today and the pitch can be varied while playing by tightening or

loosening the strings connected with the parchment by a band which goes round the strings.

A small pot covered with a diaphragm is depicted at the Vaikuntha Perumal temple next to a dancer. *Pancha Marapu* prescribes metal for making the *Kutamuzha* or pot drum. The drummer is shown playing on the pot-drum with his hands. The pot-drum is also depicted at the Pandya rock-cut sculptures (Fig. 10) of Kalugumalai assignable to 800 A.D. The multifaced pot-drum called *Kutamuzha* or *Panchamuki* is not depicted in the Pallava sculptures. Craftsmen in wood work, metal work and leather and the potter contributed their skill in making the drums.

CYMBALS

The use of cymbals must have been widespread in the Pallava period judging from the number of representations of these instruments commonly called *taalam orjalra*. The cymbals are bell-shaped and shown in the hands of celestial musicians (Fig. 11), dwarf-like figures and other musicians. In pairs of celestial musicians it is the female partner who is shown with the cymbals. Sometimes it is difficult to make out the tiny cymbals in sculptures of musicians who seem to be merely clapping hands.

The hand bell is depicted as an emblem of Durga at Mahabalipuram and at the Kailasanatha temple. It is also shown on the Dharmaraja Ratha as held in the hand of a male figure.¹⁸ Tiny globular bells called the *kinkini* were strung together and used as leg ornaments especially by the dancers. The gate-keepers wore a string of bells across their chest to announce their presence. Bells were also used on animals and one need not treat these as musical instruments. These instruments would have been made by craftsmen skilled in metal work.

The sculptures in Mahabalipuram of the pre-Rajasimha period depict mainly the *gourd vina* and the tiny cymbals. During the Rajasimha period the *vina* became even more popular and more predominant than the flute. At the Kailasanatha temple there are more than thirty representations of the *gourd vina* in contrast to about seven representations of the flute on the main tower. The drum becomes quite popular during the post-Rajasimha period as seen from the Vaikuntha Perumal temple. Here compared to more than a dozen representations of drums, there are hardly two *vinas*.

In the commentary of *Pancha Marapu* more than thirty different names of drums are mentioned and it is not clear whether all of them were different drums. In Pallava sculptures we see two kinds of vertical drums, one pot drum, at least two kinds of horizontal drums and two or possibly three kinds of hour-glass drums. In strings we

see the gourd vina, a drone, a lute and what appears to be an archaic fiddle. The wind instruments are the flutes, varying in length and thickness. There are at least two kinds of cymbals and a hand bell. Many of the instruments of the Pallava period are found in the later day sculptures of Tamilnadu and in the sculptures of the other regions of India of different periods.

In studies such as this, the conclusions arrived at are necessarily tentative and may have to be revised in the light of fresh evidence and further research. One should remember that the absence of sculptural representation of an instrument should not be treated as evidence for its non-existence during the Pallava period. More detailed studies are needed to establish the history and development of the vast variety of musical instruments of India.

REFERENCES

¹ Siva *ganas* are represented with musical instruments. Celestial musicians are often represented with a bird's body and human torso and the style of representation varies from a more elaborate form with birds' wings and tails in the earlier period to simplified forms with birds' claws but without the wings. Words such as *kinnaras*, *gandharvas* or *kimpurudar* are used to denote such beings. King Rajasimha compared himself to a *Vidyadharah*, a celestial musician, in his inscriptions.

² Some identify the cowherd with Krishna.

³ The pods of the *konrai* tree or *Cassia fistula* are referred to in many places in the *Sangam* literature. In *Silappadhikaram*, in *Aichiyarkuravai* (v. 19) we get a description of Krishna playing a *Cassia* flute.

கன்று குணிலாக் கனிஉதிர்த்த மாயவன்
இன்று நம்ஆணுள் வருமேல் அவன் வாயில்
கொன்றையம் தீங்குழல் கேளாமோ தோழி!

⁴ In verse 25 it is given that the length is 20 fingers' width and the circumference is four and a half units. A finger width is the same unit as the *angula* and a face length of a person is reckoned to be 12 units. A short thick flute is seen on the Ganesa Ratha.

⁵ Gift Siromoney, Music of the Narikorava people, in J.P. Vijayathilakan (Ed.), *Studies on Vaagrivala*, Scientific Report 27, Department of Statistics, Madras Christian College, 1977.

⁶ The *ganas*. The small Ollakanesvara temple near the light house has more than 25 examples of conch-blowing dwarfs.

⁷ Vipulanda's *Yazh Nul* has descriptions of four kinds of *yazh* in the form of harp-like instruments. Varaguna Pandian has claimed in *Panar Kaivazhi* that all of them were lutes. Abraham Pandither says some were harp-like and the others lute-like

in *Karunamrutha*

Saagaram.

⁸ Often referred to as the kinnaras.

⁹ Siva in the Vinadhara form. See K. R. Srinivasan, *The Dharmaraja Ratha and its Sculptures*, New Delhi, 1975, p.31.

¹⁰ Siva is on the proper right side and Parvati on the left. The breast is covered by the resonator. The difference in the ornaments can be observed.

¹¹ See C. Minakshi, *Administration and Social Life under the Pallavas*, Revised second edition, Madras 1975, p. 266.

¹² The manner of playing is also similar to the Pallava vina. See B. C. Deva, *Musical Instruments*, New Delhi, 1977, p. 88.

¹³ *Gana.*

¹⁴ See K. R. Srinivasan, *Cave-Temples of the Pallavas*, New Delhi, 1964, p. 23.

¹⁵ Such emblems are depicted on the door-keepers. See M. Lockwood, Gift Siromoney and P. Dayanandan, *Mahabalipuram Studies*, Madras, 1974.

¹⁶ *Pancha Marapu*, Coimbatore, 1975, v. 101.

¹⁷ *Koothanool*, Madras, 1968, Part II, vv. 84. 85.

