

Design Resource

Sitar Making - Miraj, Maharashtra

Folk Instrument of Ancient India

by

Prof. Bibhudutta Baral, Divyadarshan C. S.,

Lija M. G. and Vijay G.

NID Campus, Bengaluru

Source:

<http://www.dsource.in/resource/sitar-making-miraj-maharashtra>



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2. Tools and Raw Materials
3. Making Process
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Introduction

Sitar is considered to be one of the folk instruments of ancient India that occupies the place of pride in the Indian musical instruments, which is believed to be descending of the long neck lutes that came to India from central Asia. Miraj is the city located at the southern part of Maharashtra gives a platform for the makers of the sitar.

Sitar is one of the key instruments in Hindustani music with three strings, which belongs to the lute family where the strings of the instruments are parallel to its resonator and having bowed chordophone. The word sitar is taken from the Persian word sihtar that means three strings and tar from Punjabi language-meaning string. It is believed that sitar was introduced by Persians and Turks between 11th to 12th centuries in India that had only three strings and later the strings are increased due to the influence of veena.

It is believed that sitar evolved in the Indo- Pakistan subcontinent during the Mughal era and was one among the famous instrument that was played in the Mughal court. Sitar was one among the charming musical instrument played in the Mughal court during their period of reign. The passion for the string instrument was very much supported by Raja Ravi Varma, as he was mesmerized with the fine tonal quality and lightweight of the sitar. He also provided support and encouragement to the Persian artisans who were at his approach. Many of Raja Ravi varma's paintings illustrate goddess holding or playing sitar that shows the influence and importance of the string instruments during his time.

In the Indian culture there is so much of respect for the musical instruments as they are like part of God quoted from the famous sitarist (sitar playing person) Pandit Ravi Shankar. The influence of sitar can be largely seen towards the north side of India due to the Mughal dynasty impact. The captivate music from the strings of sitar has attracted many well known musical artist around the globe, musical bands like the Beatles and the Rolling Stones use sitar for their performance. The sitar of modern era has evolved from its original design, the changes could be seen are of the tonal quality of instrument, usage of plectrum, way of Raga Alap and treatment of the ragas. Most of the sitar manufacturers /industry are well-established and producing fine quality products. Many of these shops are about 150 years old and situated in the remote part of India, Miraj in Maharashtra provides great business opportunity for well-tuned and crafted (made) sitar, which is used by the professional and classical musicians.

Musicians usually hold the sitar at an angle of 45° to their laps while seated on the ground and pluck the strings with a wire plectrum held by the right hand forefinger. Left hand fingers manipulate the strings and apply pressure on or between the frets with sideways pulls of the strings.

Many craftsmen involved in manufacturing this instruments since decades and continuing as a family business, G.S.Musicals (gsmusicals.com, Mobile # 09970873366) is one such instrument manufacturer can be contacted in Miraj of Maharashtra.

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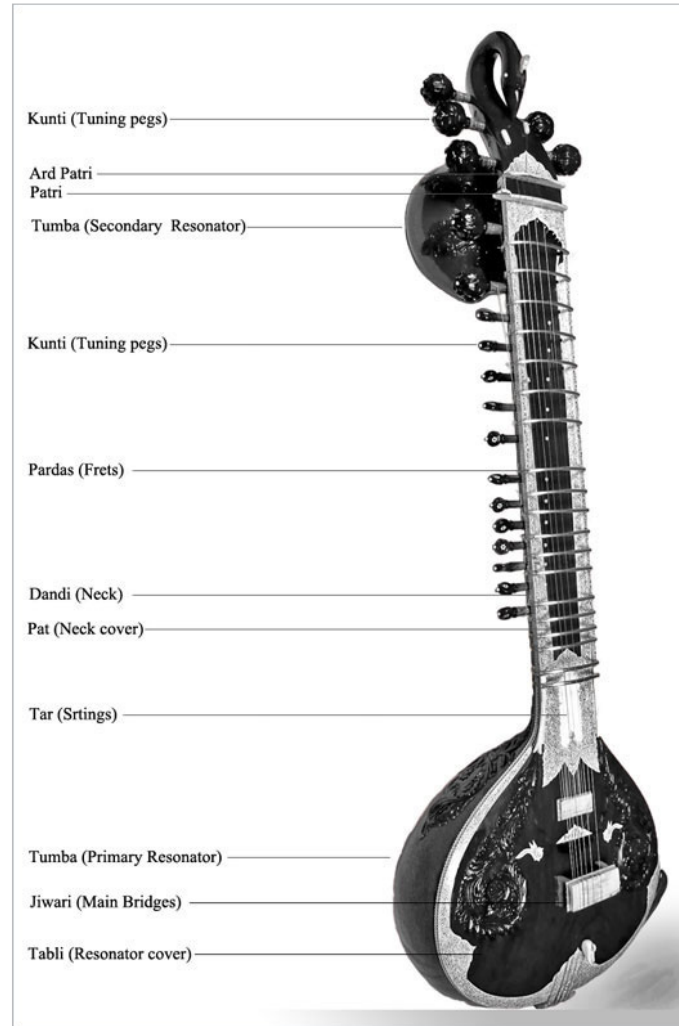
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Nomenclature of sitar.



Electric Sitar for professionals.



Craftsmen, involved in making the traditional sitar.

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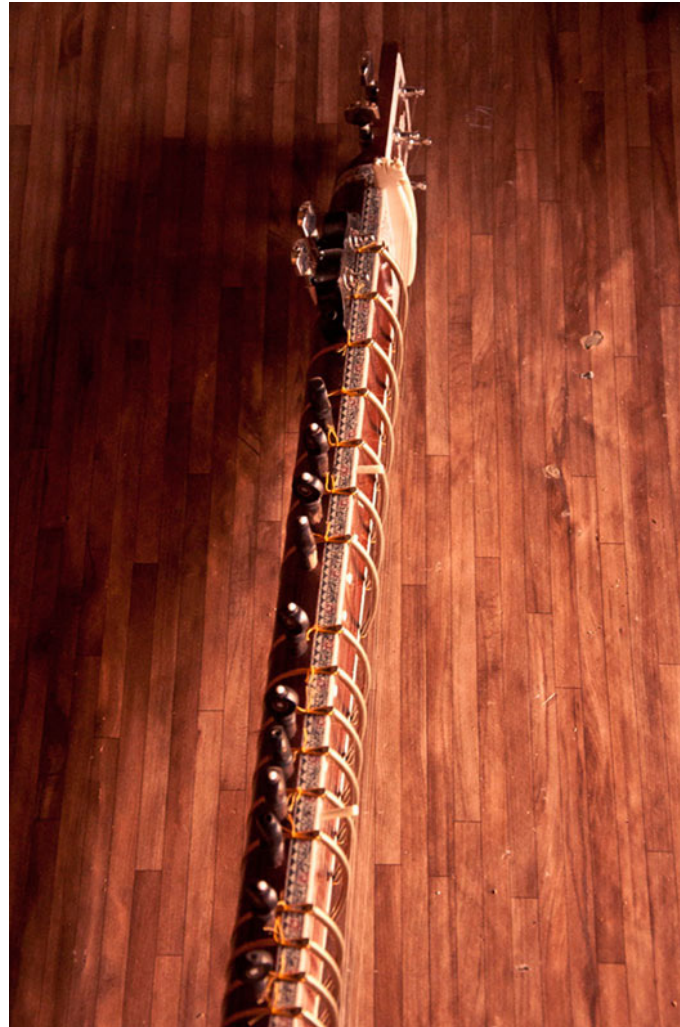
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Twenty frets are fixed on fingerboard of sitar.



The strings are attached to the tuning pegs.



Craftsmen playing the sitar to adjust the position of frets.

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Tools and Raw Materials

Different types of tools and raw materials are used for cutting and engraving of the wood for sitar making.

- **Tun or Indian Rose Wood:** It is used to make the Sitar.
- **Mixture of Charcoal and Adhesive:** It is used to paste the body parts of Sitar.
- **Varnish:** It is used for polishing the Sitar.
- **Strings:** They are plucked to produce sound.
- **Camel Bone:** It is used to tighten the strings.
- **Celluloid Membrane:** It is used for the inlay work.
- **Chisel:** It is used to carve the wood.
- **Gouges:** It is used to scoop the wood while carving.
- **Files:** It is used to make the surface smooth.
- **Mallet:** It is used as hammers to shape the wood.
- **Chirna:** It is used to sharp pen shaped metal tool.
- **Bow Drill:** It is used to drill holes.
- **Hand Saw:** It is used to cut the wood into required size and shape.

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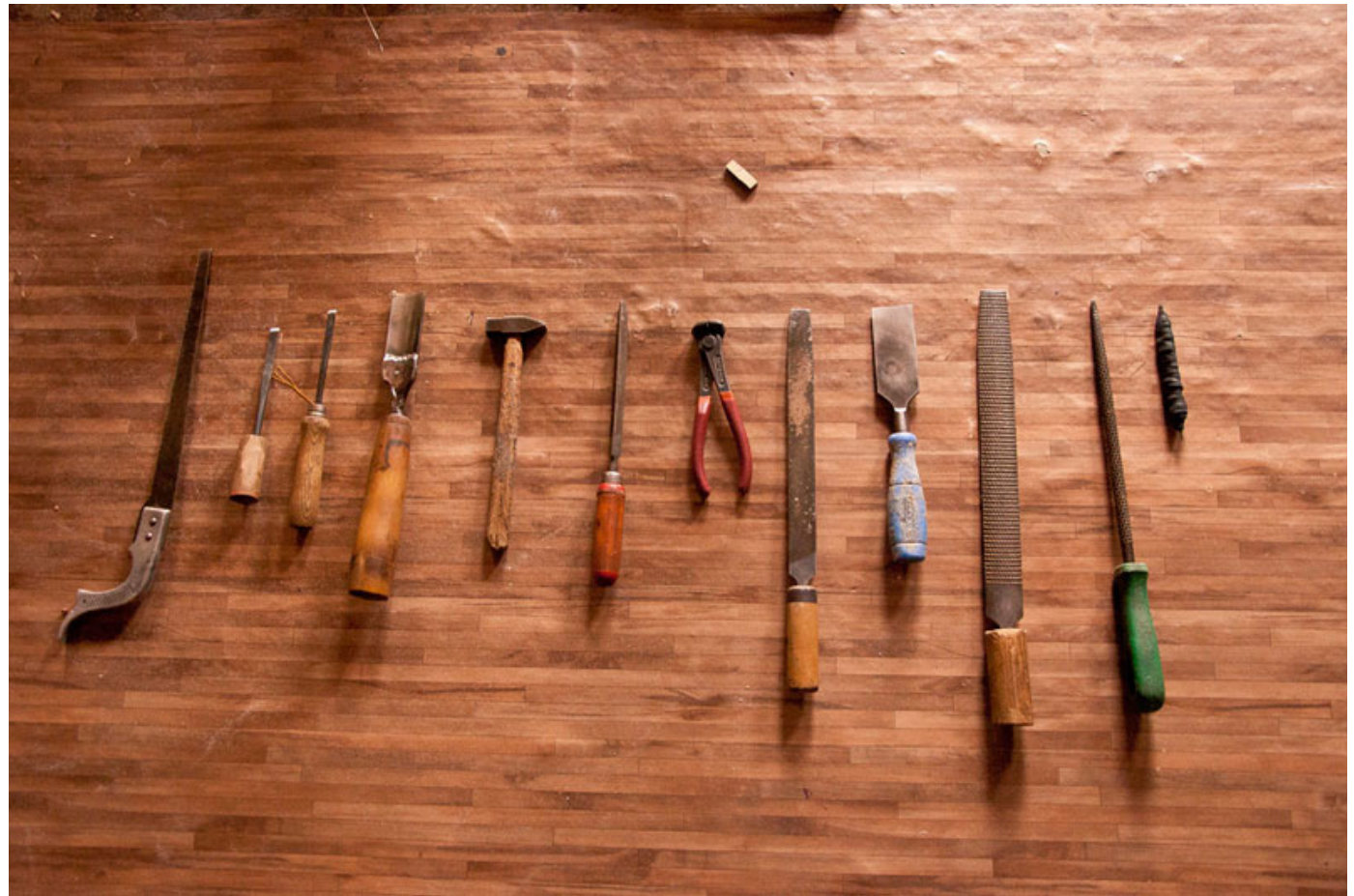
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Different types of chisels and files used to carve the instrument.

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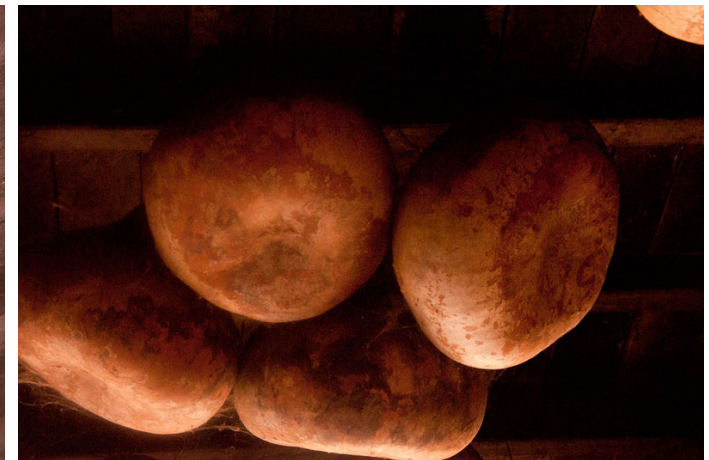
Indian teak wood or rose wood is used as raw material.



The log is cut into basic shape in saw mill.



Camel bone or stag horn is used to make the bridge for strings.



Gourd is used to make the resonator.

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Wooden nails to fasten sitar parts.

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Making Process

The most important step in making of Sitar is the selection of raw material used for the process. From centuries teak wood was preferred for the making of sitar, nowadays Indian rose wood or tun wood is used due to the non-availability of teak. Depending on the trunk diameter of the tree well-seasoned wood is selected, generally all the parts of sitar are extracted from a single wooden trunk. Selected wooden trunk is processed in saw mill and parts of the sitar like Dandi, Pta, Tabli, Gullu and Tumba are segregated.

In general the length of sitar is about 4 feet (1.2 meters) and it differs from instrument to instrument, Dandi is the neck of sitar which is carved from a single wooden piece that is hollow in an arc shape in the middle and covered with pta as top cover. Totally dandi consists of 6 different parts which include two camel bone bridge known as patri, arda-patri (that are placed opposite to each other with a gap of half an inch), strings, pta, frets and tuning pegs.

The resonator (tumba) is generally made out of tumba gourd, which is mostly cultivated at the banks of Bhima River. The size of tumba determines the length of sitar, the gourds with ideal shape and size are required for a good quality sitar. Selection of gourd (size should be not too thick/thin or dense/heavy) plays a very important role which determines the overall sound quality. Only best gourds with smooth and well composed skin with minimum flaws are used as resonator.

Usually large size gourd is preferred for the professional sitars. To make tumba, the top portion of gourd is cut and the material (pulp) inside is removed. The gourd is soaked in water for few hours that gives it a consistency of thick leather. Bamboo or tun stick is used to give support from inside which is placed at accurate point (place inside), that helps in the shaping of tumba. Gullu (part which connects tumba and dandi together) is fasten to the dried and shaped tumba using nails, carved part of the dandi is attached to gullu. All the body parts of sitar is glued together with the help of charcoal and local adhesive mixture and allowed to set. As a part of final shaping and finishing process, sitar is rasped, filed and sanded for smooth finish.

Decoration (carving) is done for which the celluloid membrane is coated onto the surface of sitar, and generally white color membrane is preferred by the craftsmen to which intricate carving is carried out. Floral design is one of the most common carving seen on professional sitar, in few designs carving is made of surface of wood rather than celluloid. Tail pieces of sitar are made of tun wood and in the case of fancy sitar, it is made up of stag horn which is added after polishing unlike tun wood.

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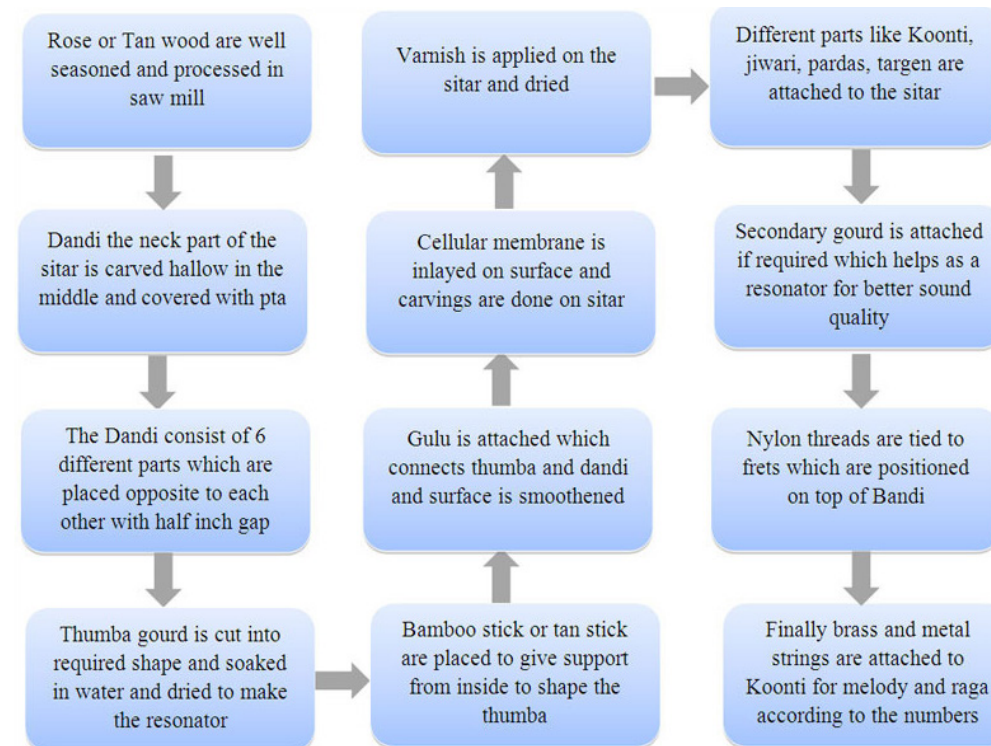
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Traditionally, shellac polish (which is usually made of resin secreted by the female lac bug) was used to coat sitar that used to take about 2 to 3 days to dry, nowadays varnish is used due to availability as it dries faster. Parts like kunti (tuning pegs), jiwari (main bridges), parda (fret), targen (nuts) and other small pieces are fasten to polished sitar. In few of the selected design secondary gourd is added on the specification by costumer. It is believed by some professional musicians, that secondary gourd also acts like a resonator and helps in total sound quality.

Kunti were made of rose wood (depending on the availability) that had blank or plane surface. Designed or carved kunti were only made (as rose wood is hard to carve manually) to add value to sitar and also for musician of high respect. However in modern times with the help of automated tools it is generally seen on costly sitar and Kunti's are attached to the left side on dandi. Jiwari is made out of camel bone that is wide and slightly carved on top. It is fixed on top of tabli (cover of tumba) which helps in tonal enhancement.

Frets are positioned on top of dandi which are tied using nylon threads, these frets are adjustable unlike in veena which are fixed. Brass strings are attached to kunti that vary in number from 18, 19 and 20. Generally, there are 13 sympathetic strings which are tuned of raga, 5 melody string and 1 or 2 drone string used for emphasize on rhythm.



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Tun wood in sizing process.



Blocks are cut according to the marking.



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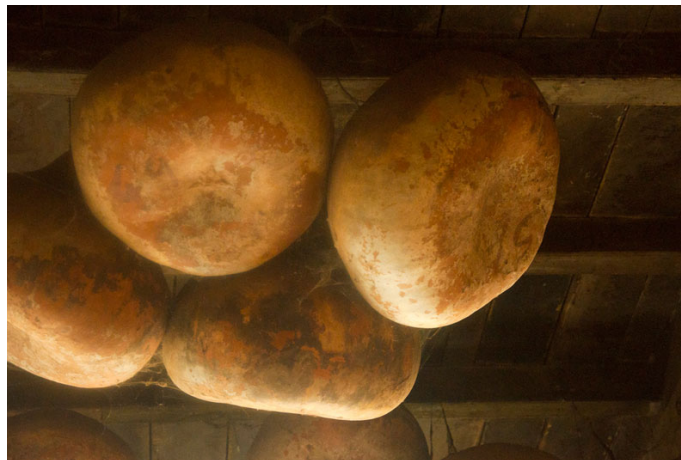
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Long rectangular block is used to make neck of sitar.



Tumba gourd is used for making resonator.



The excess wood is removed by measuring using wood scraper.

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Dry gourd is cut to $\frac{3}{4}$ size, to which wooden gulu (neck of resonator) is attached.



Gourd is filed for even thickness.

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Resonator is covered with wood plate called tabli.



Celluloid membrane is inlayed in the marked area.

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Chirna (pen shaped tool) is used to carve the design on celluloid membrane.



The sanding is done to remove the rough edges.



Sitar is coated with wood polish and sanded.



Pegs are made of rose wood and filed.

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The peg is inserted at the end of the sitar on which the strings are wound.



Divider is used to measure the main bridge height, which is made of stag horn or camel bone, which acts as a tonal enhancer.



The surface of the bone is leveled.



The bridge is fastened at the middle of the tabli (resonator cover).

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Two pieces of the bone is place parallel at the end of the finer board which are known as Parti and Ard-parti.



Frets are shaped to arc form.



Twenty brass frets are on the fingerboard.



Frets are assembled with help of nylon threads (which are adjustable).

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The positions of the frets are confirmed by playing the strings.

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Products

There are different varieties of sitar depending on the size and decoration, the price range depends on the overall tuning and outlook of sitar. The instruments are mostly used for the Hindustani, Classical and in many other traditional occasions. The products are usually engraved with peacock and floral motifs to give more elegant look to the Sitar and consists of different designs. Different varieties of student and professional sitars are available in market.

Some of the well-known sitars are as follows:

- **Angurpatti:** On this type of sitar the carvings of grape leaves are done on the neck and face of the sitar.
- **Munda:** In Munda sitar the designs are not carved on the thumba.
- **Plane Sitar:** In this sitar, the designs are not particularly carved on any portion of the sitar.



Gourd shape decides the size of sitar.

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The carved designs give an appealing look to the sitar.



Electric sitar is modern instrument used in fusion music.



Sitar consisting of 20 strings embellished with inlay work.

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This documentation was done by Prof. Bibhudutta Baral, Divyadarshan C. S. Lija M. G. and Vijay G. at [NID Campus, Bengaluru](#).

G. S. Musicals (gsmusicals.com) is one such instrument (sitar) manufacturer can be contacted in Miraj of Maharashtra. Their contact number is +91 09970873366

You can get in touch with

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You could write to the following address regarding suggestions and clarifications:

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