

2 THE CLASSICAL SARANGI

2.1 *Sarangi makers*

Although the large sarangi used in contemporary classical music evolved only recently—around the 1850's—hardly anything is known about the craftsmen who specialized in making these instruments. "Jaunpuri sarangis are the most famous", writes Shahinda in 1914, whereas S. Bandyopadhyaya informs us that sarangis made in Budaun (Uttar Pradesh) are considered the best.¹ The musicians I spoke to, however, always refer to Meerut as the main centre of sarangi manufacture and

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Masita (c. 1840-1920) as the best maker. He is said to have learned the art from Mendu Khan, who lived during the time when the form of the large sarangi was determined.

Masita's sarangis are much sought after because of their superior sound and workmanship, and can be easily recognized by the connoisseur. It would be difficult to describe all their structural and ornamental features in detail. Their characteristic mark is a bird-shaped decoration of inlaid ivory above the large, arched opening (*mahrab*) in the head, whilst above the smaller niche the inlay consists of a rhombus or a 'small bird'. Masita's 'signature' has been widely imitated, however.

It was Masita's disciple, Abdul Aziz Behra (d.c. 1945), who, in the opinion of present-day sarangi players, made the most beautiful and solid instruments. When they can be found, they are usually in good condition. Unfortunately, his life-span was short and he did not make many instruments. Behra's mark resembles that of Masita, but on top of the 'bird' there is an inverted heart with three black dots.

Ram Narayan, Inder Lal Dhandra and the late Khadir Bakhsh, to mention only a few artists, chose to play on a Behra sarangi. [22] It also serves as a model for the sarangis of Prabhu Dayal, who occasionally makes them for Rikhi Ram, a reputed musical instrument shop in New Delhi. However, the quality of these instruments is much inferior to the original ones.

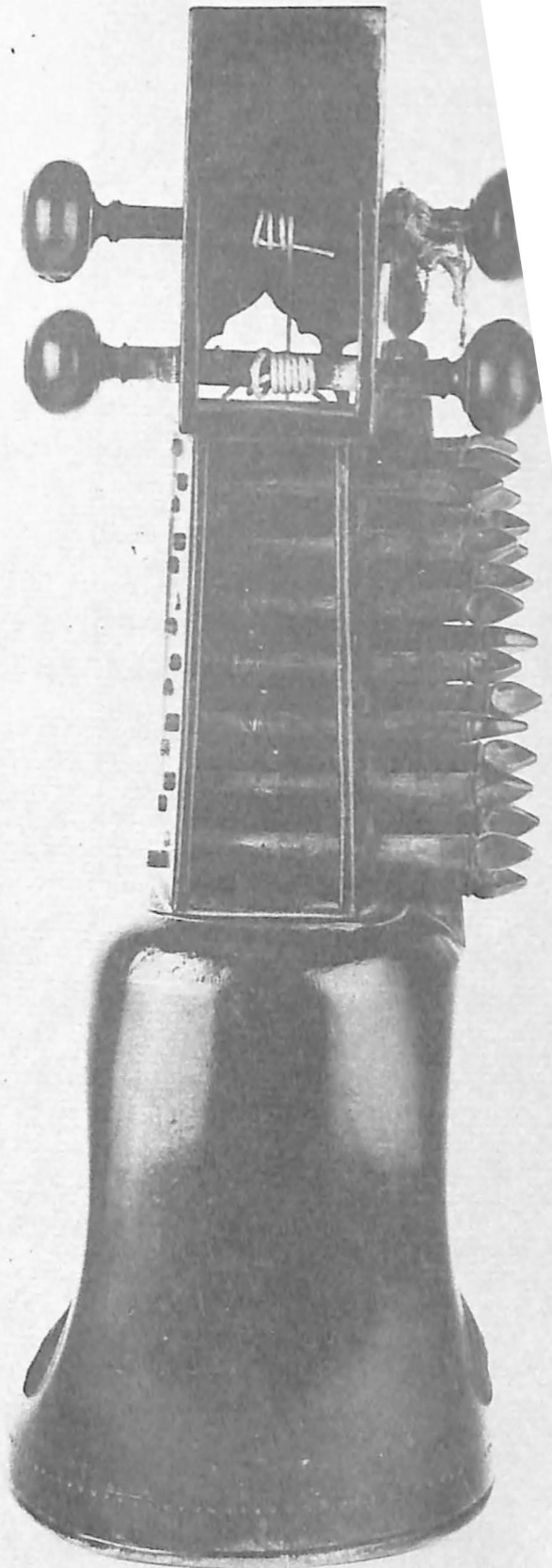
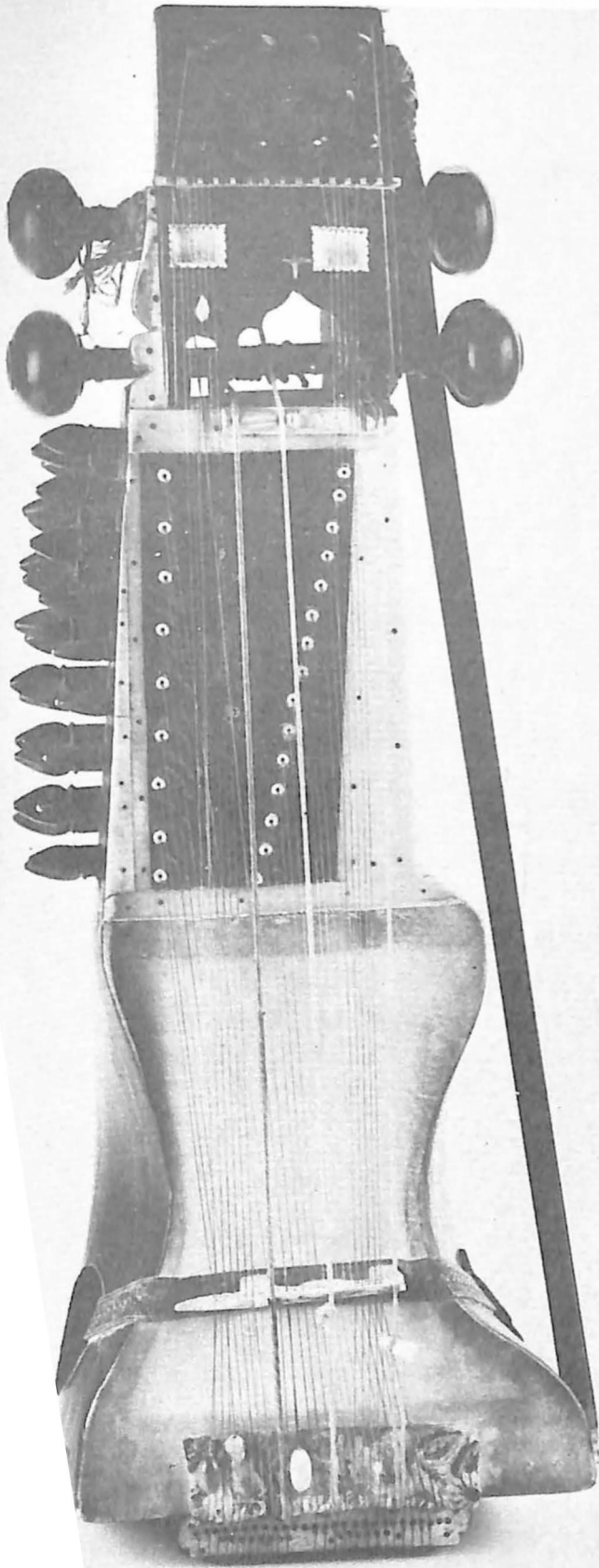
The son of Behra, Jassin, made instruments which are much lighter, but they have an excellent timbre. They are not very sturdy, however, and hence short-lived. The art of sarangi-making came to an end after Jassin, in spite of the fact that he taught the profession to his son. When I visited Meerut in 1971, I found out that this gentleman was working in a factory, since the demand for new sarangis is nil. Visiting other places in search of sarangi makers, I was equally disappointed. It is indeed doubtful whether one can still find an instrument maker skilled enough to make a good sarangi. It is even hard to find an expert who can repair an old sarangi; the best one I have found is Kartar Chand, who has a workshop in Pahar Ganj, Old Delhi.

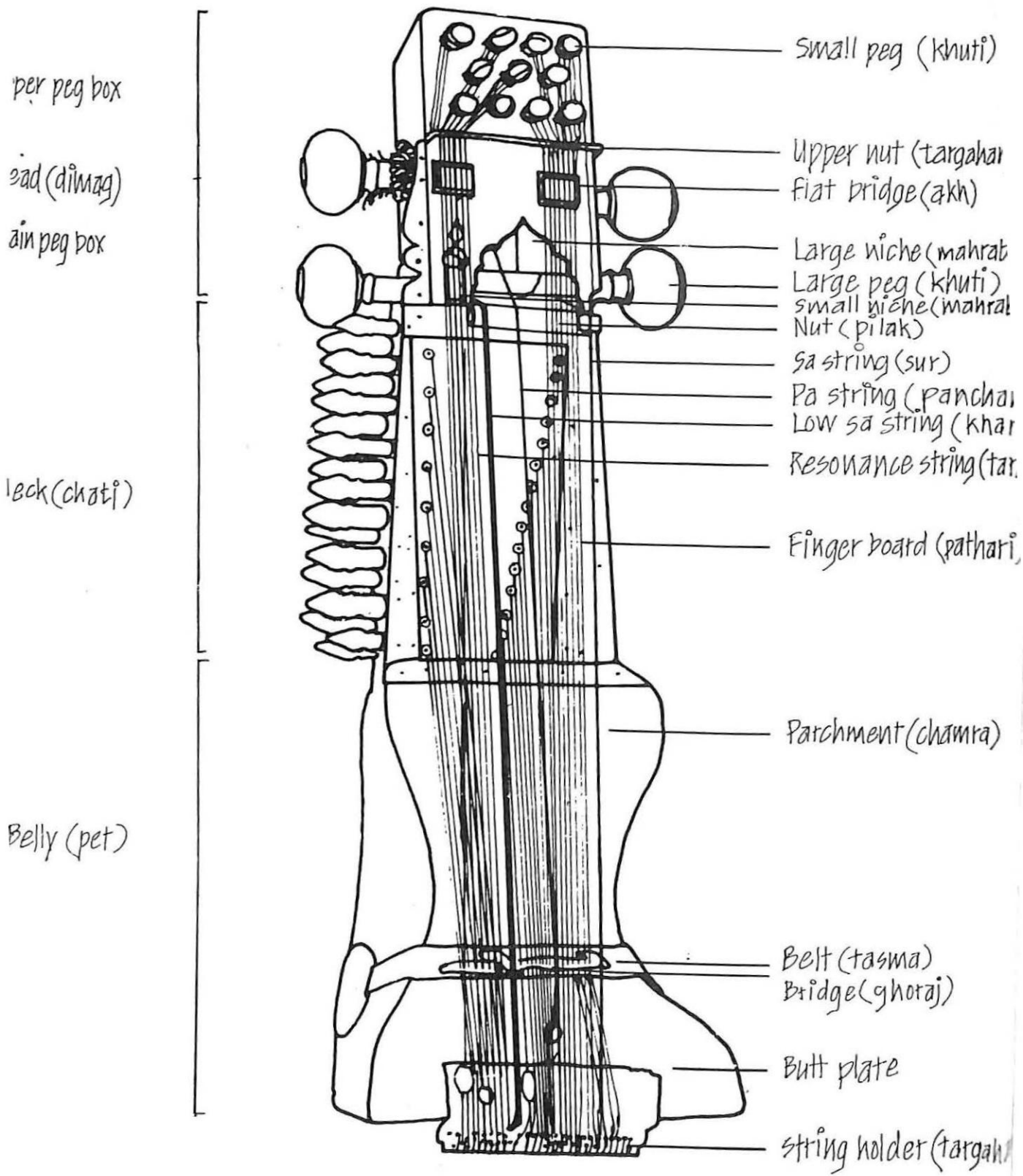
It is certainly not easy to find a good, old sarangi. Most of the instruments sold in antique shops are in a deplorable condition and badly damaged. Over the years prices have shot up; in the early seventies, it was still possible to buy a common sarangi for Rs. 250 or less, but today (if one knows where to find one) the same instrument would cost from Rs. 750 to Rs. 1500.² New sarangis, manufactured mainly for export or the tourist trade, are usually of very poor quality and of no use to a sarangi student.

2.2 Terminology

A feature of early bowed instruments retained in the sarangi is their construction from a single block of wood, usually *tun* (*Toona ciliata* Roem., syn. *Cedrela toona* Roxb.), "which has been seasoned for one year and preferably treated with *geru* (red ochre) dissolved in water in order to restore the wood's natural colour and give it a natural sheen."³

Sarangis are commonly 64-67 cm long, with the belly (*pet* or *pasli*) hollowed out in the front.⁴ [23, 24, xix] The neck (*chati* or *sina*, lit. chest) and head (*magaz* or *dimag*, lit. brain), which consists of two pegboxes, are hollowed out from the back. Thus, a sarangi contains four separate chambers. In the partition between





xix The parts of a classical sarangi

belly and neck there is a large hole at the back (c. 35-40 mm in diameter) which seems to be a distinguishing feature of the sarangi. When moving around with the instrument slung over their shoulder, folk musicians keep the bow in this hole.

The sarangi usually has 35 resonance and three heavy gut strings, which cause a tremendous tension on the body of the instrument; so the walls have to be fairly thick (c. 7-10 mm). The 'butt plate' which supports the stringholder (*targahan*) is between 30-40 mm thick. Even so, in spite of its inordinate thickness (and the internal wooden post, placed between the butt plate and the wall separating belly and neck), the majority of old sarangis are bent or cracked, especially behind the stringholder.

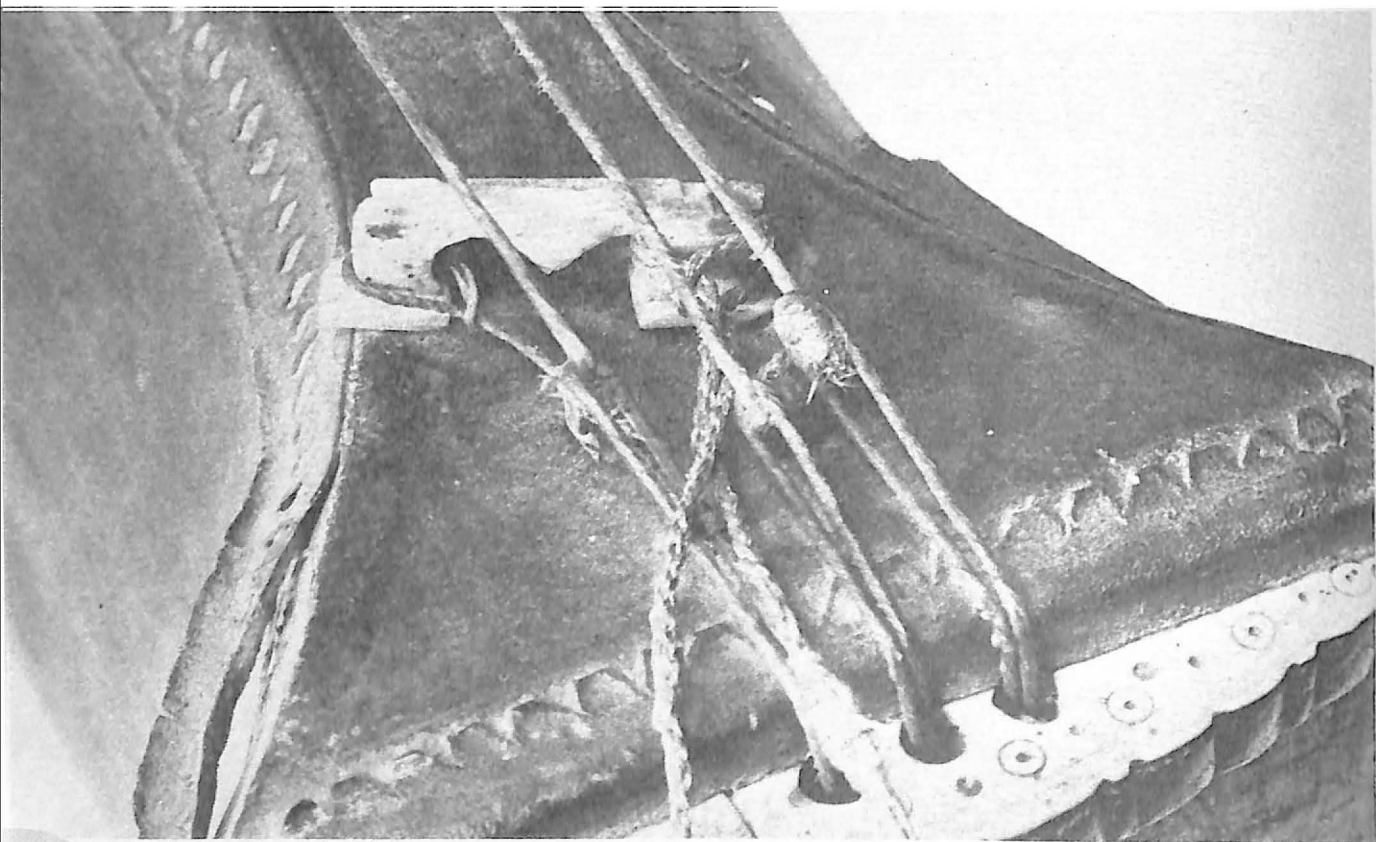
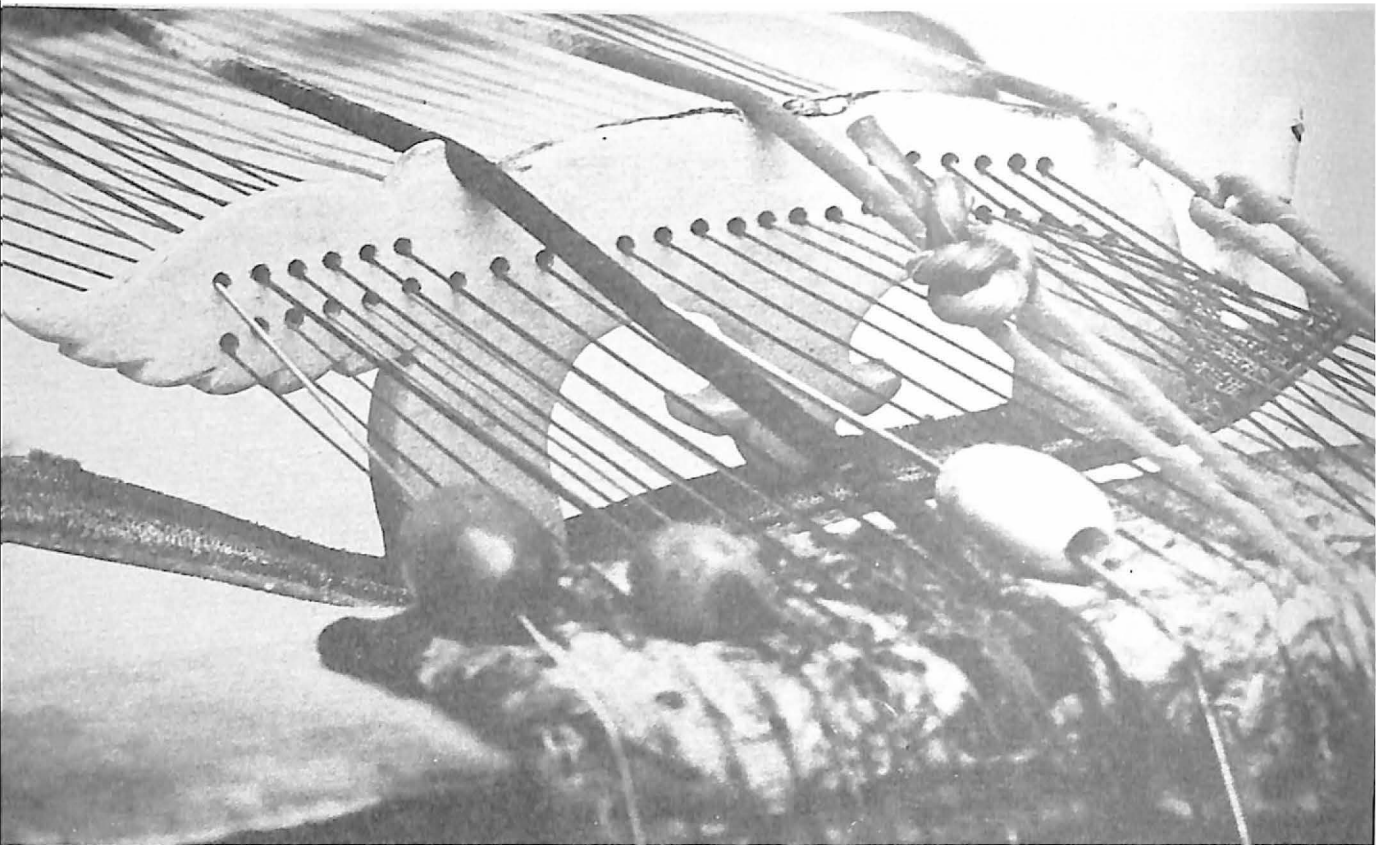
The belly has an irregular shape and is much less incurved on the right side than on the left, due to the extension of the neck. It is covered with the thin skin of a young goat (*khal* or *chamra*), tightly glued along the rim. Some sarangi players pierce or burn (with a cigarette!) a few soundholes in the skin table. The pressure from the bridge (*ghoraj*) forces the skin down considerably in spite of the fact that the bridge is supported by a leather belt (*tasma* or *patti*) nailed to the sides of the belly.

The neck of expensive instruments is decorated with pieces of inlaid ivory or bone (often fish-shaped), especially the part where the fingers touch the fingerboard (*pathari*). This provides a smooth surface and prevents wear at these points. Inserted in the neck on the right side are three rows of small pegs (*khuti*) usually made of *shisham* wood (*Dalbergia sissoo* Roxb.). The two back rows of 15 pegs tune the main set of sympathetic strings (*andheri ki tarab*), which pass through ivory or bone tube inserts (*dana*, *mukta* or *biri*, lit. bead) situated diagonally on the neck under the three main strings. The front row of 9 pegs tunes the right-hand set of sympathetic strings, which run almost vertically down the right side of the neck.

The resonance strings attached to the 11 frontal pegs mounted in the upper pegbox pass through holes in the upper nut (*targahan*), and are stretched over two table-like bridges (*akh*, *tarab ki pilak* or *jivari ki adi*), which are filed to a slightly curved arc. These so-called *jivari* bridges form a characteristic feature of Indian stringed instruments.

The main and right-hand resonance strings (*tarabs*) are traditionally made of either copper or brass, with a diameter of 0.40-0.45 mm, although the new vogue is to use steel strings of 0.30-0.35 mm. The upper *tarabs* are mainly steel, but copper is used for the strings tuned to a lower pitch.

The playing strings are made of gut. Considering their length and high pitch, they are quite thick. The first string (*sur*, *tip* or *jil*) has the thickness of a harp G (fourth octave), the middle string (*pancham* or *dor*) of a harp B (fifth octave), whereas the lowest string (*kharaj* or *sharaj*) corresponds to a double bass D string.⁵



Folk sarangis usually have three playing strings of silk, horsehair or gut. Another metal string is sometimes added as a drone, placed in close proximity to the main playing string and tuned to the same note. In classical sarangis, the fourth large peg (*khuti*) has lost its original function, since the string attached to it has become a ground-note for the system of sympathetic strings. This string of twisted brass wire (*laraj*) is the only resonance string secured in the mairt pegbox.⁶

The sarangi has five bridges altogether: two nuts (one for the upper *tarabs* and another for the playing strings, called *pilak* or *ad*), two flat *jivari* bridges and a main bridge (*ghoraj*) made of ivory, stag-horn or ebony. The *ghoraj* is arched, carved in the shape of an elephant and supports all the strings.[25] The playing strings pass over notches, whereas the resonance strings pass through small holes drilled into the bridge at two levels. The lower row of 25 holes accommodates the main and right-hand *tarabs* as well as the *laraj*. The upper row is in two groups, consisting of five holes on the left and six on the right, for the *jivari tarabs*.

2.3 Tuning

The sarangi has a relatively wide pitch range and can be tuned from C sharp to F sharp. The best sound is obtained by tuning the first string to D sharp or E, but, as vocalists sing at their own pitch, sarangi players must always adjust to that pitch for accompaniment. When this is impossible, as is often the case with women singers, they transpose to the middle string. Hence, there are two basic tuning systems:

- (1) *Chargha*, keynote-fifth-octave ($S \dot{P} \dot{S}$), the most common tuning which by transposition becomes fourth-keynote-fourth ($M S \dot{M}$) and is called *madhyam that*.
- (2) Keynote-fourth-octave ($S \dot{M} \dot{S}$), which by transposition becomes fifth-keynote-fifth ($P S \dot{P}$), and is called *thath*. Sometimes, the *kharaj* is lowered a whole tone so that the tuning becomes fifth-keynote-fourth ($P S \dot{M}$). This is to extend the lower register.⁷

The tuning of the sympathetic strings also follows two basic systems, one for accompaniment and the other for solo. In both, the main *tarabs* are tuned chromatically, starting from the lowest string at a minor sixth (*Dha komal*) or minor seventh (*Ni komal*), depending on the gauge of the strings. Since this is a fixed scale, sarangi players talk about *achal that*.

In solo-playing, the right-hand *tarabs* are usually tuned according to the scale of the *raga*, starting from the keynote. Thus, in Kafi *that*, the nine sympathetic strings are tuned as follows:

S R G M P D N \dot{S} \dot{R}

For accompaniment, however, the right-hand *tarabs* are often tuned chromatically, enabling the sarangi player to change the pitch of the main strings with a minimum adjustment necessary for the *tarabs*, and in order to play in any *raga* which the

singer may choose. The late Abdul Majid Khan, for instance, used brass wires for all the resonance strings on his sarangi and tuned them as follows:

N N S R R G G M P

The upper *tarabs* are tuned in a melodically interesting manner and vary according to the *raga* and the taste of the player. The following tunings (left to right) in Kafi *that* may serve as examples.

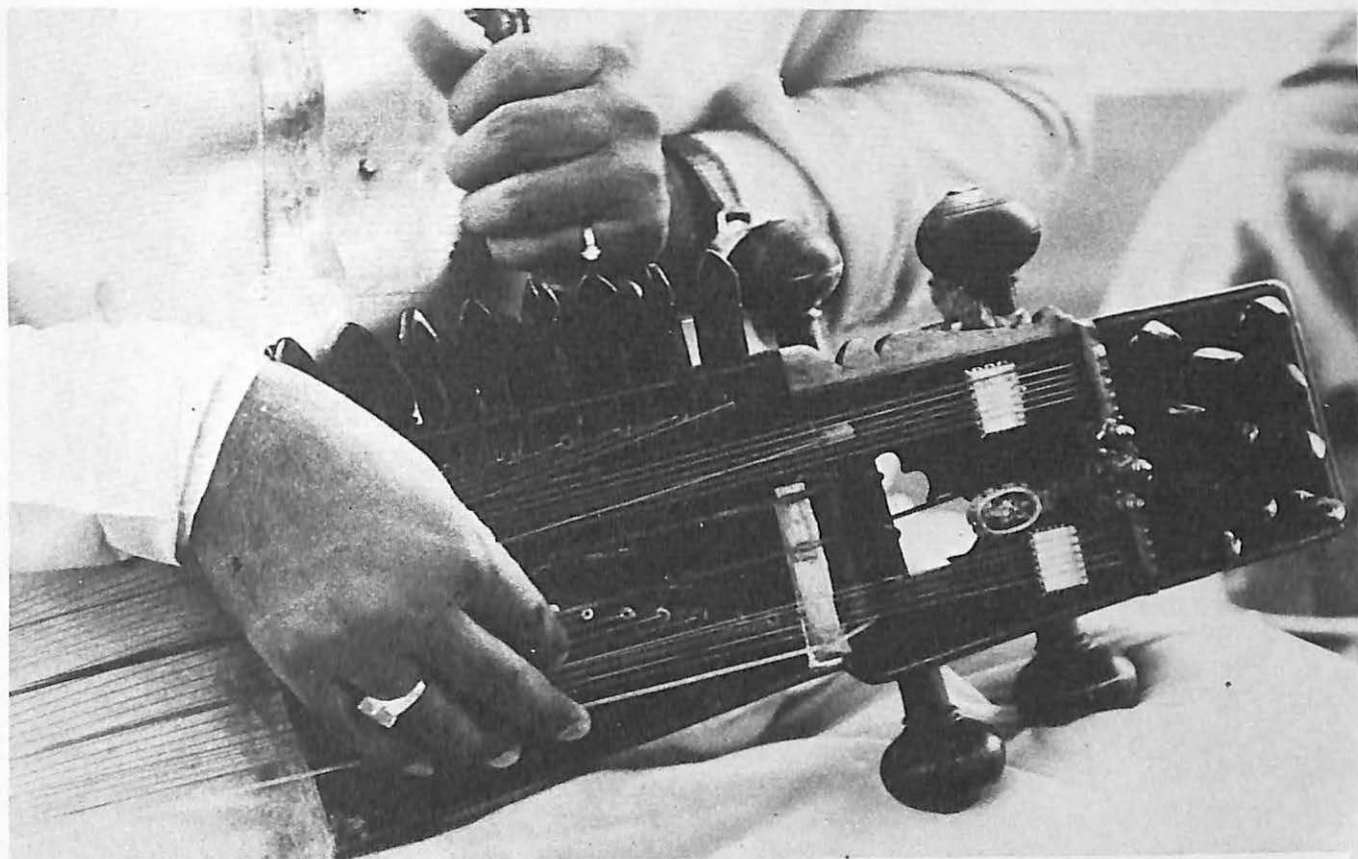
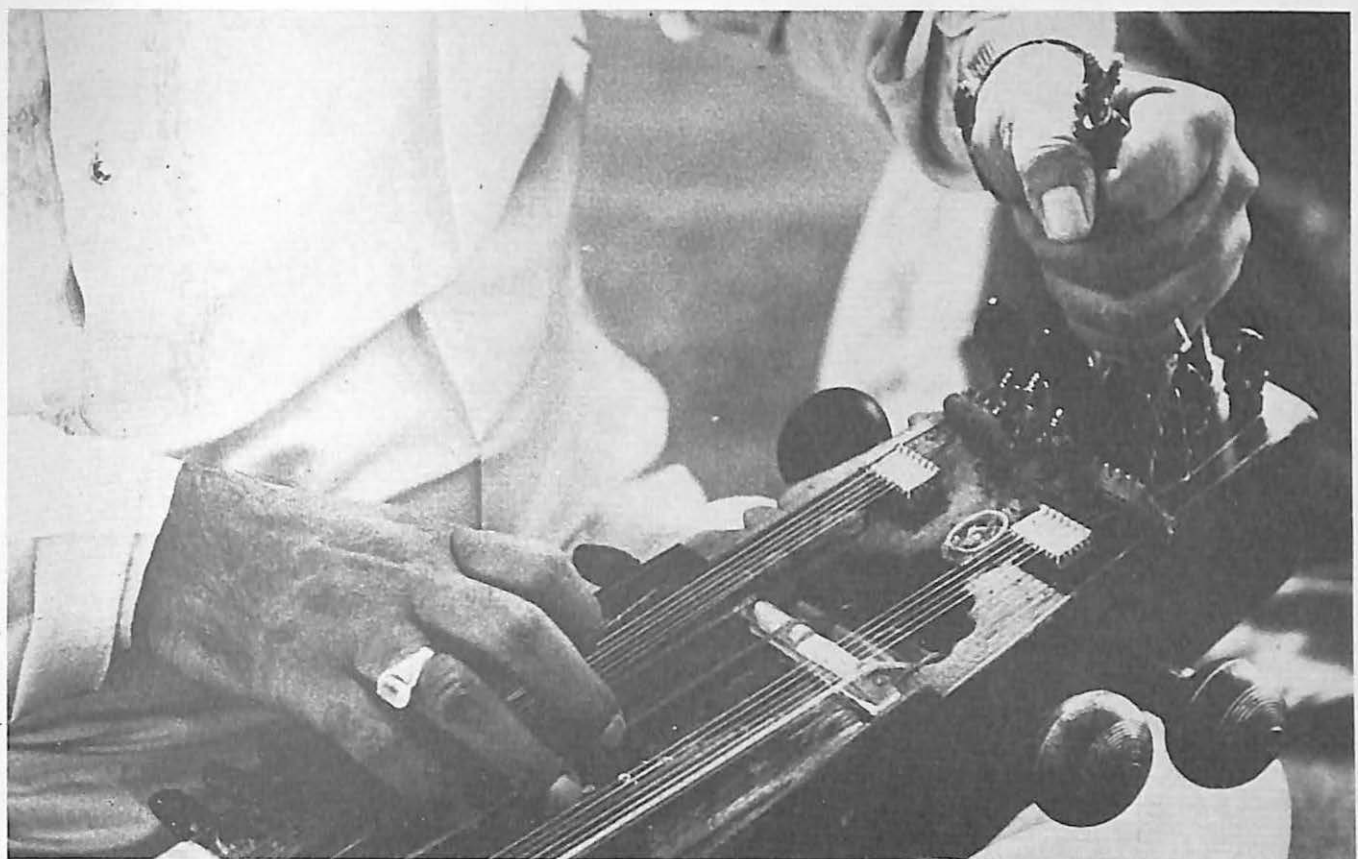
Ram Narayan :	<u>N</u> S R <u>G</u> <u>D</u>	<u>N</u> S R <u>G</u> M <u>S</u> <u>N</u> S R <u>G</u> S <u>P</u>
Inder Lal Dhandra :	<u>G</u> R S <u>N</u> <u>P</u>	R S <u>N</u> <u>D</u> <u>P</u> <u>S</u>
Abdul Majid Khan :	<u>G</u> <u>M</u> <u>M</u> <u>P</u>	R <u>G</u> <u>G</u> <u>M</u> <u>P</u> <u>N</u>

In tuning, the artist observes the following procedure. After adjusting the main strings, he places the sarangi horizontally in his lap in front of him and begins to tune the upper *tarabs* in sequence, left to right.[27] The pegs are turned with the help of a tuning-key (*mochana* or *chutki*), made of hardwood or stag-horn, and the strings are sounded with the nail of the right-hand index finger. Next he tunes the right-hand *tarabs*, then the main *tarabs*. [28] After checking the playing strings, the whole tuning procedure is repeated several times until the sarangi sounds at its best. Under favourable conditions, a sarangi player can tune his instrument in five to ten minutes.

2.4 Left-hand technique

The high-positioned main strings of the sarangi are stopped by pressing the fingernails sideways against them. Most sarangi players use the part of the nail just under the cuticle (and some in fact use the skin above the cuticle) with the fingertips touching the fingerboard (*pathari*). Talcum powder is applied as a lubricant. The left-hand technique involves both sliding from one note to another and articulating separate notes, giving the sarangi a range of musical possibilities which is virtually unmatched.

"The actual fingering is completely unstandardised; one might almost say there are as many fingering patterns as there are players", write Neil Sorrell and Ram Narayan.⁸ My own research does not corroborate this view, and shows that various schools of sarangi players in northern India have evolved different but consistent fingering systems, according to the demands of their musical styles. In general, it seems that previous generations of sarangi players practised a more complex fingering, using four fingers instead of three. Complex fingering seems better suited for expressing the distinct and vivid movements characteristic of the lighter genres, but it is cumbersome. For solo-playing in particular, the more streamlined systems have proved to be superior, because of their logic and efficiency, and the resultant speed which they allow.



Four fingering systems are given below. The first one was demonstrated by several old artists, including the late Abdul Majid Khan and Mohammad Hussain Khan.

Table: Fingering Systems

	S R G M P D N Ś Ġ ... Ś N D P M G R S
(1) Old school, DELHI and surrounding cities	0 1 1 2 2 3 3 $\frac{3}{4}$ 4 ... $\frac{3}{4}$ 3 3 2 2 1 1 0
(2) New school, DELHI and surrounding cities Bundu Khan (<i>sapat</i>)	0 1 1 2 2 3 3 3 3 ... 3 3 3 2 2 1 1 0 0 1 1 2 2 1 2 3 4 ...
(3) BANARAS	0 1 2 $\frac{3}{1}$ 2 3 3 3 3 ... 3 3 3 2 $\frac{1}{3}$ 2 1 0 (0 1 2 2 2 3 3 3 3 ... 3 3 3 2 2 2 1 0)
(4) UDAIPUR: Ram Narayan Inder Lal Dhandra	0 1 2 2 2 3 3 3 3 ... 3 3 3 2 2 2 1 0 0 1 $\frac{2}{1}$ $\frac{2}{1}$ 2 3 3 3 3 ...

Apparently, the great majority of sarangi players who belonged to the 'old school' [see Table (1)] employed the little finger in the *tip* region (higher register) when playing fast scales or *sapat tanas*, i.e. consecutive ascending or descending note patterns. As shown below in interrupted note sequences and *paltas* (exercises), the *Re Ga Ma Pa* movement was sometimes played with the first, second, third and fourth fingers respectively.

S R G M S — M — R G R S M G R S,
0 1 2 3 0 3 1 2 1 0 3 2 1 0

R G M P R — P — G M G R P M G R, etc.
1 2 3 4 1 4 2 3 2 1 4 3 2 1

This *palta* was taught to me by a sarangi player from Meerut who was already in his nineties, ten years ago. It appears to be a fingering especially evolved to accompany women singers, where it is seldom necessary to play much above the fifth on the first string, which in *madhyam that* corresponds to the tonic of the singer's higher register.

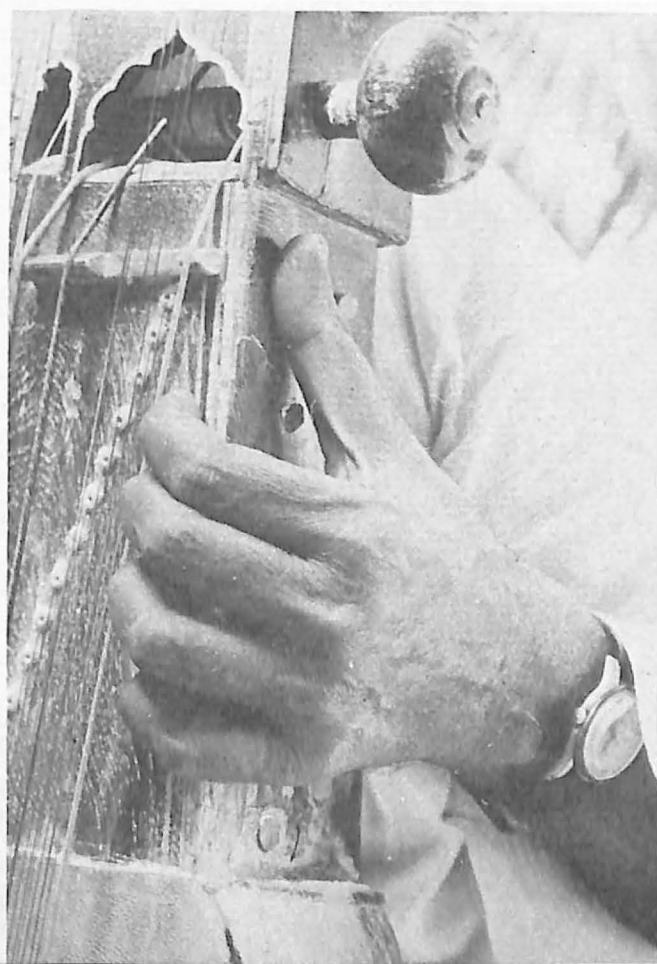
After experimenting with the then current fingerings, Bundu Khan came to the conclusion that the little finger was too weak to be of much use in the *tip* region. He did not completely discard it, but employed it sparingly, for instance in fast runs or certain embellishments (*murkis*). As a result of Bundu Khan's research and fame, artists of the 'new school' [see Table (2)] dropped the fourth finger and continued with the third finger from *Dha* (in the middle register). This fingering,

used by most present-day sarangi players, is a simplification of the older system. The following *palta* may serve as an example of its application.⁹

S R G R S R G M G R,	G M P M G M P D P M,
0 1 1 1 0 1 1 2 1 1	1 2 2 2 1 2 2 3 2 2
P D N D P D N Ś N D, etc.	
2 3 3 3 2 3 3 3 3 3	

In contrast to many other sarangi players, Bundu Khan "was not so dogmatic about any special fingering . . . He used the little finger to achieve special effects and found it particularly useful when playing *thumris* in the style of the Patiala *gharana*, because it made the *murkis* much easier to reproduce", writes Rajesh Bahadur in a personal communication.¹⁰ Having mastered all the fingering systems of his time, Bundu Khan could comfortably play any note with any finger. In playing *gamak* for instance, he would often stop the same note with three fingers instead of one (as most sarangi players do). Rather than shaking the whole hand up and down, as a result of which the *gamak* may sound unclear and out of tune, Bundu Khan developed a technique in which the three fingers follow each other in rapid succession, thus repeating the same note three, four or even five times, as shown below:

G G G	G G G G	G G G G G
3 2 1	3 2 1 2	3 2 1 2 3
1 2 3	1 2 3 2	1 2 3 2 1



"Whilst on the subject", continues R. Bahadur, "Bundu Khan was particularly fond of telling his students that the thumb was extremely important! He said that while playing, the thumb should never become rigid and must be moved up and down to help the fingers become more evenly balanced, pliable and dexterous. He used to say that the kind of lightness of touch one must aim for in sarangi is that which comes easily to good exponents of the harmonium."

Sarangi players from Banaras profess the contrary. According to them, the thumb should be held rigidly on the neck. In the first position it is placed where the neck meets the head, and *Re*, *Ga* and *Ma* are stopped with the first, second and third fingers respectively [see Table (3)]. [30] In the second position, the thumb is placed further down, and the notes *Ma*, *Pa* and *Dha* to *Sa* are stopped with the first, second and third fingers respectively. In the third position, playing in the higher register (*tip*), the thumb rests on the bulge of the belly. Thus, depending on the position, the fourth (*Ma*) is stopped with either the first or third finger, as demonstrated in the following *palta*:¹¹

S R G M,	R G M P,	G M P D,	M P D N,
0 1 2 3	1 2 3 2	2 1 2 3	1 2 3 3
P D N S, etc.			
2 3 3 3			

When the scale of the *raga* contains an augmented fourth (*Ma tivra*), however, it is stopped with the second finger, in which case the fingering becomes identical with the system propounded by Ram Narayan [see Table (4)]. [29] This is probably the most simplified system, and Ram Narayan strictly adheres to it, as shown in this *palta*:

S R G G R S S R G R R S,	R G M M G R R G M G G R,
0 1 2 2 1 0 0 1 2 1 1 0	1 2 2 2 2 1 1 2 2 2 2 1
G M P P M G G M P M M G,	M P D D P M M P D P P M,
2 2 2 2 2 2 2 2 2 2 2	2 2 3 3 2 2 2 2 3 2 2 2
P D N N D P P D N D D P, etc.	
2 3 3 3 3 2 2 3 3 3 3 2	

The inherent logic of the system is explained by Neil Sorrell and the maestro himself:

The second finger is used more than the first because it is the strongest of all the fingers. The third is used perhaps most of all, especially in the higher register where consecutive notes are played with this one finger. This can easily cause intonation problems but it has many justifications. If consecutive notes were played in the top register with consecutive fingers, the fingers would be too far apart even if bunched tightly together, and correct intonation would be impossible. The third finger has a narrower nail than the other fingers . . . and this assists in finding the note accurately. Moreover, the hand is turned slightly in the highest register so that a smaller part of the nail touches the string . . . [The fourth] finger may be used to touch the first string to give a very high *Sa*, three octaves above the open string, but is too weak for any other use, although some other sarangi players do use it more. The final point in favour of playing consecutive notes with one finger is the most important, since it lies at the heart of

Indian music. Graces, slides and slurs, used correctly, are essential. Western music is more concerned with a clean jump from one note to the next (thus consecutive notes are usually played with separate fingers on stringed instruments) while Indian music emphasises not only the stopping points of notes but also what lies between them. Even in fast playing, Ram Narayan insists, 'there must be some grace'. There is also an important qualitative difference between playing a phrase like *Dha Pa Ma Pa* fast, using Ram Narayan's fingering—3222—and what may seem a simpler and more obvious fingering : 3212. The latter is considered to be light and frivolous, lacking the heavier and nobler quality of the former, and the difference is noticeable, however fast the tempo.¹²

It should be noted that Inder Lal Dhandra who, like Ram Narayan, comes from Udaipur, basically follows the same fingering. Inder Lal is less strict, however, and teaches his students to stop *Ga* and *Ma* with either the first or second finger, as shown below :

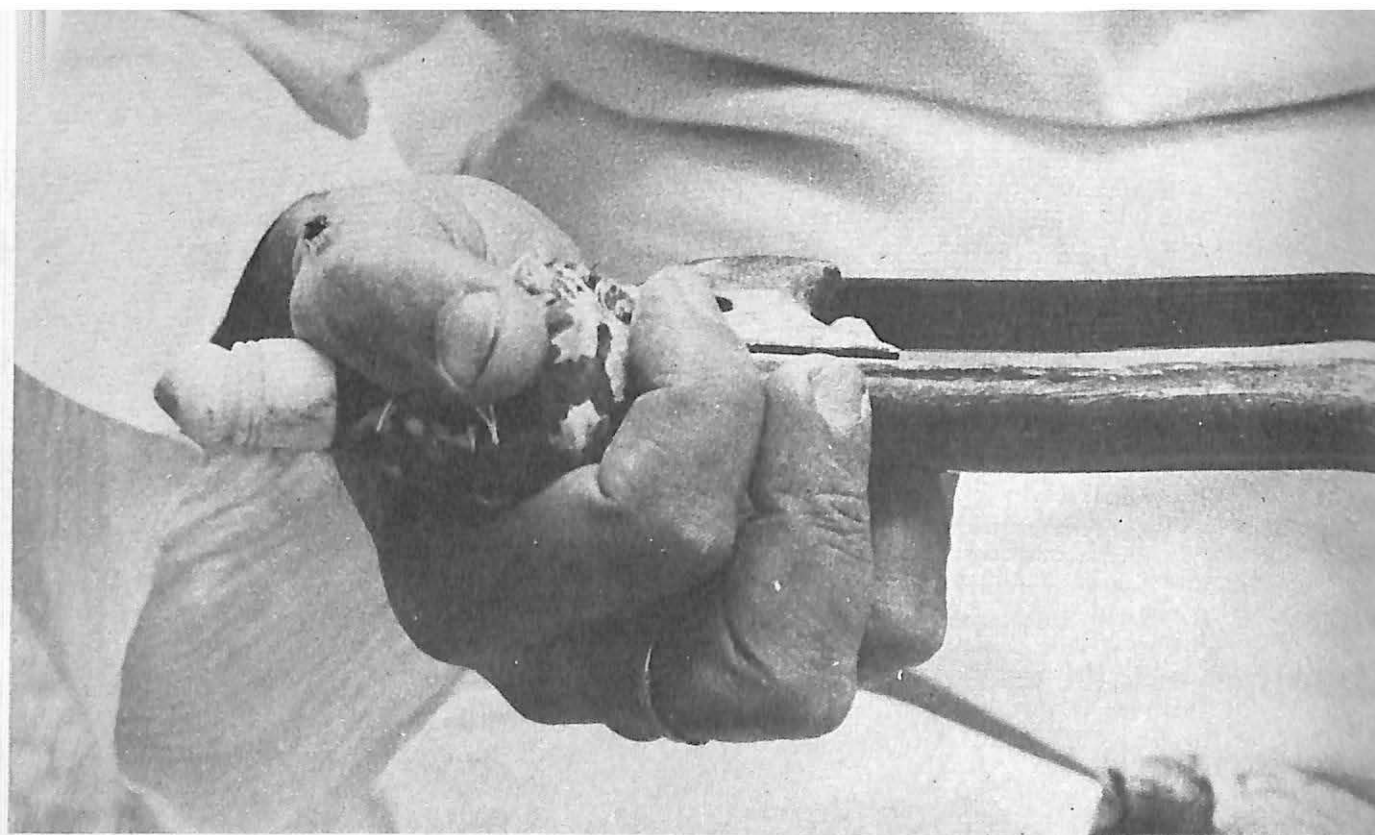
S R G S G R G S R G R S,	R G M R M G M R G M G R,
0 1 2 0 2 1 2 0 1 2 1 0	1 2 2 1 2 1 2 1 2 2 1 1
G M P G P M P G M P M G,	M P D M D P D M P D P M, etc.
1 2 2 1 2 1 2 1 2 2 1 1	1 2 3 1 3 2 3 1 2 3 2 1

Obviously, there are many other fingering systems, each with its own advantages and disadvantages. In general, expert sarangi players consider the system itself less important than consistency and tunefulness, which are achieved by correct practice.

2.5 Bowing

The shaft of a sarangi bow (*gaz* or *kamani*) is made from a straight length of hard wood—approximately 70 cm in length and round in section—which bends when it is strung with horsehair. The hank of hair (*bal*), from the tail of a stallion, passes through a hole at the distal end of the stick, and is tied into a knot (*gundhi* or *choti*). The proximal end of the hair, which is plaited, passes over a wooden nut (*ad* or *gatta*) and through another hole in the stick. "The nut is tied in position by an elaborate criss-crossing of strong thread [woven into the plait] and cannot be adjusted without loosening this thread. Generally, bows maintain their tension very well and never need adjustment."¹³ Rosin (*biroja*) is applied to the hair from time to time.

Traditionally, sarangi players use heavy bows made from ebony (*abnus*), strung with black horsehair, which has a very long life. Present-day artists tend to use lighter bows made from *shisham*, but advise their students to practise with a heavy bow, which takes more effort to control. The bow is held in an underhand grip and the pressure is regulated by the first two fingers (or the forefinger alone), which are positioned on the shaft, while the other two (or three) fingers embrace the nut. It can be held in two ways, either with a closed fist or an open grip.[31, 32] The latter seems to allow for longer and more sustained bowing. "Unlike many players Ram Narayan keeps his right hand low so that the bow is more or less at right angles to the string . . ." ¹⁴ However, when the hand is lifted slightly, it eases the rhythmical use of the bow in *zor*, *jhala*, *layakari* and other rhythmically active movements which are played with the tip of the bow



In order to bring out the richness of sound and to get a full response from the sympathetic strings, the bow must engage the strings close to the bridge. Bow control is fundamental to the art of sarangi-playing. When describing bowing, however, sarangi players are much less explicit than when they elaborate on left-hand technique, for which there are many different types of exercises. Proficiency in bowing, in their opinion, comes largely with practice.

In our view, however, most sarangi players have not given serious thought to bowing. Often, they use only part of the bow, interrupting each stroke with a pause. Besides, there is little play with dynamics. Naturally, great sarangi players have paid due attention to right-hand technique, developing long, steady bows and flawless, inaudible bow changes. Ram Narayan, in particular, emphasizes the importance of very slow practice, using the full length of the bow. He observes a clear distinction between up and down bows, and stresses that a new phrase or movement should always begin with an up bow.
