Chapter-6

Seven-stringed Violin

It’s Comparison with Four-stringed Violin

Speaking on T. Chowdaiah's seven-stringed violin, Yehudi Menuhin said: "I find it so difficult to play the violin with just four strings. I wonder how he manages seven of them."

In recent years, music concerts have steadily come under the sway of the microphone and loud-speakers. While helping to get larger audience, it has the insinuating effect of bringing an emotional gap between the singer and the listener. Only the amplified music is heard. The audience need not even listen attentively and so rapport becomes difficult. Classical music is serious music. It must be taken seriously and listened to with rapt attention.

Why a Seven-stringed Violin? Rationale behind Invention:

Chowdaiah explains the reason for his invention of the seven-stringed violin in his conversation with Sri B.V.K. Shastri1: ‘In a recital in nineteen twenties, I was as usual accompanying my guru. In the later stages of the concert, when he was singing a Desiya raga, I played a double stop on the strings. Naturally the chord seemed to enhance the depth and delectability of his singing. When I repeated it, my guru, with an approving nod, asked me what I was doing. On my mentioning the technical character of the device, he remarked casually that it would be great if it could be used on a permanent basis. This set my mind working and I spent several sleepless nights. Finally I thought of adding three more strings to the upper three. My house was in fact littered with the dismembered trunks of several violins during those experimental days and finally I negotiated the many

technical hurdles and devised an instrument reasonably satisfying my needs. After repeatedly playing this and assuring myself of my control of the modified instrument, and after its being subjected to therepeated scrutiny and examination of my guru and also of Veena Sheshanna, I brought into circulation.’

Chowdaiah lived in an age when there was no amplification. He was a man of great originality and courage. He had an urge to try new things and do things others had not done. The vocalists of that age, owing to their relentless practice, had strong and dominating voice. They could also sing in all the three octaves with perfect precision and ease. Bidaram Krishnappa and Chembai Vaidyanatha Bhagavatara, for example, sang with such a loud voice that even in a hall comprising of thousand people, they were heard. So when violin was played, it would be drowned in the sound of their voices.

Marungapuri Gopalakrishnan, a violinist of repute, who faced a similar problem, had attached a contact-mike for his violin. But violin is a soft instrument and stalwarts like Mahavaidyanathalyer, Koneri Rajapuram Vaidyanatha Iyer, Patnam Subramanya Iyer, Harikeshanellur Muthiah Bhagavatar and Palakkadu Rama Bhagavatar had such loud and resonant voice that it drowned the sound of the violin even when it was reinforced from microphone. Moreover, the sound of the violin did not synchronize with that of the voice.

Chowdaiah noticed this. He contemplated on making changes in the violin itself. He started experimenting and his experiments knew no end. He thought the change introduced should not diminish the quality of the sound of the violin. Adding extra strings to the instrument was the solution, as the sound of the double strings in each pair when played together boosted the volume of the instrument.

Another important reason for the invention was the lowering of the adhara
shruti of the vocalists. Because of the low pitch of the instrument, it was barely heard. While the new instrument with the seven strings was a good solution to these problems, it also helped to build a good rapport with the audience.

Chowdaiah explains this in his conversation with Ariyakudi: ‘Theshruti of the musicians is becoming regularly attenuated and in accompanying this attenuation, the violin has become quite spiritless and it is to save this situation that I have modified the violin’.¹

**Initial Criticism:**

Initially, of course, Chowdaiah had to face a lot of criticism over the usage of his invention from the music fraternity. His Guru Sri Bidaram Krishnappa himself was not in favor of it initially. The Dhanammal family ironically called him ‘Sevudiah’, hinting that the loud sound from the violin made the listeners deaf. When Chowdaiah had to accompany Sri Ariyakkudi Ramanuja Iyengar for a concert at Madras in 1935, Ariyakudi, who was visibly irritated by Chowdaiah’s seven strings, teased Chowdaiah by launching into passages difficult for violin accompaniment. But Chowdaiah rose to the occasion and did not, even for a single moment, fail in his accompaniment. After the concert Ariyakudi asked Chowdaiah how many more strings he had in his violin case.²

C.S. Iyer, brother of Nobel laureate Sir C.V. Raman and a former Accountant General, Iyer, an expert violinist, wrote a book titled, ‘The Art and Technique of Violin Play and Other Essays on Music’ in 1941. In this, he argued that the cramped position in which the South Indian violinist holds his instrument has ensured that he does not use more than half the

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¹Ellarvi in his article on Chowdaiah in the souvenir of Rasika Ranjani Sabha, Calcutta, 1962. ²Article-‘With many strings to his bow’ by SriramVenkatakrishnan, The Hindu, December 14th 2007.
length of the string, with the “mediocres” using only “2/5ths of the string from the neck.”

Also, he said, since violinists are largely accompanists playing to a male voice, they play at low pitches leading to further loss of tone. It is this handicap, said Iyer, which had “forced an artiste to devise the seven-stringed violin with Banjo strings so that he may not have to play above a third of the violin from its neck. As if all his attempts to damp the full violin tone are not sufficient, the violinist occasionally rubs fine oil on his left finger tips while playing, to secure easy movement or slipping of fingers! What a mockery of violin play!”

The write-up was not taken kindly to by Chowdaiah and the two clashed bitterly during the Academy Conference of 1942, leading to the adjournment of a day’s proceedings. They met again in 1947 when SemmangudiSrinivasaIyer presided over the conference.

December 1947. The Vidwat Session was in progress in The Music academy at Madras. Shemmengudi Shreenivasa Iyer was the President of the academy. The hall was packed and several scholars were present in the hall. Chowdaiah was also present. The meeting began with Parthasarathi Iyengar demonstrating music on a gottuvadyam with 12 sympathetic strings. Chowdaiah then gave a demonstration on “the advisability of additional strings on the violin.” He traced his efforts in adding extra strings, having first begun with two and later adding the third. Referring to the need for the additional strings, he stated that vidwans such as Ariyakkudi Ramanuja Iyengar and G.N. Balasubramaniam “had welcomed his accompanying them in the concerts on his seven-stringed violin”. Accompanied by his disciple Venkatarama Shastri, Chowdaiah played on his seven-stringed violin and during the demonstration, he referred to the need for the additional strings and said that the additional strings had to be resorted to for giving full tone and audibility when the vocalists sang to a low shruti.
He demonstrated by playing on his sven-stringed violin—“Manavi Nalakincha Radate” in Nalinakanti (Sri Tyagaraja) and “Ikanainanaamoravinaaraada” in Pushpalatika (Tirupati Narayanaswami). C.S. Iyer, an Expert Committee member, read out from his book on violin to show that he had realized himself the reasons which led the vidwan to add the additional strings. But he maintained still that the pure sound of the violin tone suffered by the additional strings. Chowdaiah showed another violin with twelve sympathetic strings! Iyer stood up and announced, ‘The seven stringed violin is very harsh to hear and has absolutely no melody. Like the clarionet, Saxophone, Khanjira or Jalatarang, this instrument also should be thrown away to a corner.’ “Impossible”, Chowdaiah thundered, “What is the shortcoming in this instrument? Why should it be thrown away to a corner?”

“Because it is unclassical, unconventional. And because gamakas do not pulsate in this instrument”, said Iyer.

Chowdaiah was the last person to give up. He said, “It may not be possible for Iyer but it is possible for me. I challenge that any gamaka can be played with this instrument. Let Iyer play any Gamaka in his four stringed violin. I will reproduce the same with my instrument. It is wrong to say no to something Just because one does not like it. I have experimented all the possibilities in my instrument and it was only after I was satisfied that I started using it in my concerts. Would my master approve of it or encourage it if it were untraditional? He is no more today. But in his place, Ariyakkudi, who is also like my Guru is present here. Maharajapuram, Chembai, Shemmangudi, Madhurai Mani, G.N.B. And Alattur brothers are also here. I have been accompanying all these artists with this instrument. If they found any shortcoming in the instrument, they would definitely have told the world about it and discouraged me. Instead, they have realized the

1Music academy journal volume 19,
advantages of the instrument and have encouraged and supported me. Ask them. If their opinion supports Iyer’s, I will stop playing it from today and will not play it anymore.”

The people in the sabha welcomed Chowdaiah’s challenge with huge applause. And the opposers were quiet. The President of the conference VidwanShemmangudi Shreenivasa Iyer wound up the discussion by an appeal for adopting the golden mean between purity and orthodoxy on one hand and innovation and progress on the other. While he said he has his own regard for the good work Which C.S. Iyer was doing to the academic side, he would add his own testimony to the fact of the excellence of the accompaniment of violin Chowdaiah on his seven-stringed violin.1 When there was criticism for his invention of seven stringed violin as untraditional, late Sangeeta Kalanidhi Musiri Subramanya Iyer said, “It is no surprise that those who came to scoff, remained to pray.”

**Experimentation:**

It isn’t that such experiments with the violin were not conducted earlier. A violinist named Masilamani Mudaliyar who was older than Mahavaidyanathaloyer (1844-1893) had added a fifth string to his violin. He used to provide accompaniment especially to Coimbatore Raghaviah. When he sang, he used to sing the Panchama of anumandrasthayi very often, and to help the accompaniment, Mudaliyar had included the fifth string which was tuned to *anumandrapanchama* and he called it ‘Ragha Tanti’. ShatkalaGovindaMarar, a scholar who was a contemporary of TyagarajaSwamy used a tambura with five strings. He was a master in singing in six speeds-atyati-vilambita, ativilambita,vilambita, madhya,druta

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1 Music academy journal volume 19.
2 Musuri Subramanya Iyer in his article on chowdaiah in the souvenir, Rasika Ranjani Sabha, Calcutta, 1962.
and atidruta. Chowdaiah used to practise and play varnam in six speeds. But his seven-stringed violin was of a different type. We also find that Ratnakara Bhatta, a Hindustani violinist also played a violin with five strings. It is also noteworthy to document at this point, the method of adding extra strings was developed and perfected on Gotuvadhyam, by very senior vidwan and close friend of Mysore T. Chowdaiah, Gotuvadhyam Shri Narayanalyengar, prior to Shri Chowdaiah’s attempt to improve thenadam of the violin.1 In foreign countries too, a lot of research was done in this field with the same instrument with different number of strings. In fact, to this day, experiments are still on the swing to improve the sound of the instrument. Jimmy Free, for example, is a popular artist of the seven-stringed acoustic violin. He is the only seven-stringed acoustic violinist in the world today.

And there is Guqin too- which literally means ancient stringed instrument, which is plucked seven-stringed Chinese musical instrument of the Zither family. This instrument which has been referred to as ‘the father of Chinese music’ or the ‘instrument of the sages’ has been played since ancient times and has traditionally been favoured by scholars as an instrument of great subtlety and refinement.

When the idea of inventing a seven-stringed violin occurred to him, Chowdaiah experimented first by adding two strings to the fifth string in his four-stringed violin. The sound seemed good to hear. So he added one more string. So three lower strings were added to the panchama, Shadja and Madhya Panchama and the manda shadja was left alone. Finally the strings were arranged this way- Tara shadja- mandrashadja, madhya panchama- manda panchama and madhya shadja-mandra shadja. Thus the strings were Gothicized, keeping in mind the human voice. He

1 Interview with Sri Chitraveena Narasimhan, senior Chitraveena player and vocalist and son of late Gotuvadyam NarayanaIyengar on 29-6-2011.
experimented, innovated and practiced to achieve perfection.

‘What I am trying to do is to restore the volume of the shruti and the instrument is capable of subduing itself to the vocalist as an accompaniment and can itself produce enough volume as a solo instrument. When it is played as a solo instrument, there will not be any ‘Rasaabhaasa’ and it will satisfy the connoisseurs in addition to bringing credit to the violinist himself.’ says Chowdaiah in his conversation with Ariyakudi Ramanuja Iyengar.1

Executing melody on the violin was subjected to two kinds of melodic discontinuity- that imposed by the frequency of the left hand movement and that imposed by the frequency of sound priming by the right hand. Both these had to be co-ordinated well if Chowdaiah was to stimulate the aural experience of vocal music on the seven- stringed violin. He had to get many more intonations under the impact of each bow, while also ensuring a much greater sustenance of each intonation. The ratio of melodic density to stroke density had to be tilted sharply in favor of melodic density. In addition, the instrument had to be made capable of delivering a wider range of timbers than had hitherto been possible. A part of the solution to these problems was technique. But the larger part of it was to be the instrument’s ability to support the technique. These were the guiding considerations for Chowdaiah’s re-engineering of the instrument. But, once they were put in motion, a more comprehensive vision of the

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1Ellarvi in his article on Chowdaiah in the 16th annual conference, 1962.
vocalized aural experience took charge of the process. For executing the vocalized idiom, Chowdaiah’s first imperative was that the melodic execution should shift predominantly to string-deflection techniques such as Gamakas and birkas.

**Unflinching Dedication:**

To achieve mastery over anything in any field, a dedication, a surrender and complete involvement in it is what is required. Chowdaiah not only loved his instrument, he worshipped it. Every morning after an early bath Chowdaiah performed pooja, invoked the blessings of his Guru and worshipped his pet invention - the saptatanti violin. We see this religious routine portrayed in his character in his film ‘Vani’ too. This violin which he invented after his intense research and hours of planning and technical adjustments is the first of its kind in the world. For him The Saptatanti represented the Sapta Devatas of the saptaswaras. His dedication towards his instrument is best explained by his disciple V. Seturamiah thus: ‘He loved his violin as his second self and saw his ishtadaivata in it. He practiced it every day sincerely, lovingly and with dedication. When he played, his fingers allowed the bow to gently caress the saptatanti lovingly first and then immediately his violin would commence to pulsate … He would find the swaradaivatas leap out of the instrument instantly, stretch themselves separately and in unison with
resonant, delicate and divine music.’

It is this dedication towards music and his violin that took him to the peak of popularity.

**Structure of a Seven-stringed violin:**

The components that make up a seven string violin are very similar to those found on a traditional violin. The shape of the body and neck of a seven string violin closely resemble that of a traditional violin. The body is slightly wider and deeper to improve the resonance of the strings. It features a larger pegbox to accommodate the extra three strings. Although larger than a traditional violin, a seven string violin is smaller than a viola.

The body of a seven-stringed violin consists of a top plate, also called the belly, a back plate and ribs, which connect the top and bottom plate at the side and the neck. Back plates, ribs and the neck are usually made from maple or sycamore, and the belly is usually made from spruce. The purfling, which runs around the edge of the spruce top, provides protection against cracks. It also serves to allow the top to flex without cracking.

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1 V. Seturamiah in his article on his Guru in the souvenir released on the occasion of the Opening Ceremony of The Chowdaiah memorial hall, 1980.
Scroll
The scroll is the hand-carved decorative part at the top of the violin neck. Its main function is to hang up the instrument.

Neck
The neck supports the fingerboard, the peg box and scroll at the top. It is an important part of the instrument and is straight.

Tuning Pegs:
Tuning pegs are usually made of ebony, but can also be made of boxwood or rosewood. The pegs feature a hole through which the string is inserted and wound up. Musicians tune their violins by tightening or loosening the strings by turning the pegs.

Fingerboard:
The fingerboard is the piece of veneer wood that is laminated onto the violin neck. It is the surface where the player's fingers press down on the strings. Violin fingerboards are traditionally made of ebony.

Sound Post
The sound post is a small cylindrical piece of wood, cut like a dowel and usually made of spruce that stands up underneath the treble side of bridge, between the back plate and front of violin. It is held in from pressure and is never glued, but it is positioned exactly to enhance the tone. The sound post is not visible; it is inside the body of the violin. Its function is to transfer vibration from the front plate to the back plate of the violin.
**Bridge**

The bridge is a specially shaped piece of wood designed to support the strings and determine their height above the fingerboard. It is held in place by the strings and sits directly above the sound post. The bridge, the sound post and the violin body all vibrate when a string is played. Altering the position of the bridge changes the sound of the instrument. The bridge of a seven–stringed violin is usually (but not necessarily) bigger than a four-stringed one.

**Chin Rest**

The chin rest is attached to the bottom of the top plate, where the player places his chin when playing, supporting the instrument. So the player's hands are free for playing.

**Tail Piece**

The tail piece is a wooden piece with a hole for each string that sits behind the bridge on the belly of the violin.

**Fine Tuners:**

Fine tuners are small wooden corks that move against a lever that tighten the string. These are found towards the tail piece. Fine tuners are used to accurately tune a violin. They are made of wood. For the three extra strings, the corks are metal ones and the strings are tuned to perfection with the minimum effort for tuning with these corks. The four wooden corks are found horizontally to the ground while the violin is held in the playing posture and the three metal corks are perpendicular to the other four. Because the extra three strings are fitted vertically to the fingerboard, tuning is easy and can be done without any hassle.

**F Holes:**

The F holes are carved out of the belly and allow the circulation of sound and its exit from the body when a string is played. Slight changes in the
placement, shape or length of the F holes and the contours in the body will alter the tone of the instrument.

**Bow:**

The bow used to play the violin is made from a wood or carbon-fiber stick onto which the taut horse hair is attached. The best violin bows are made from Brazilian Pernambuco wood, or Brazilwood. The bow of a seven-stringed violin weighs heavier when compared with that of a four-stringed one. The bow hair is also one and a half times more than that of a four stringed violin.

**Strings:**

The strings used in a seven-stringed violin are made of Banzo. Banzo wires were those made with aluminum with an inner layer of steel. The second string in each pair of strings is the Banzo string. To play for the ‘G’ shruti, a banzo string of No.27 along with a steel string of No.32 can be comfortably used. The banzo strings had to be changed for each concert as the string would wear off and would not be reusable. So for each concert the strings had to be replaced. To avoid this, violinists began to use electro metal wires in place of banzo wires. Till 1967, ie till the period of Chowdaiah, banzo strings were used. The banzo wires used in the concerts were of the following sizes:

- The thick string: No.20 and No.23.
- Thin string: No.27.

**Differences between a regular four-stringed violin and a seven-stringed violin:**

Though both the four-stringed violin and seven-stringed violin look like identical twins, the differences between the two are many. By contrast with the conventional four-stringed violin, the seven-stringed violin instrument designed by Chowdaiah has several features to the disadvantage of the
player. The three additional strings are added to the upper three and are tuned an octave below. This gives it a double-reed effect. Measurement wise there are differences between a seven stringed violin and a four-stringed one. A seven-stringed violin is broader than a four-stringed one. If a four stringed violin’s chest board is about one span, a seven-stringed one is about one and a half span. There is difference in the weight itself. A seven stringed violin weighs much more than a four stringed one. It is heavier than a four stringed one. It is therefore difficult to hold it for a long time. The weight of the bow too is more when compared to a four-stringed one.

There are differences in the finger board of both the violins. The finger board of the seven-stringed violin is broader as it has to accommodate seven strings instead of four. As the strings need to be placed with some gap so as not to clash with one another during playing, the finger board has to be correspondingly broader even though the strings are placed with the minimum space in between.
The bridge of a seven-stringed violin too is bigger when compared to a four-stringed one. As seven strings need to pass through the bridge instead of four, the bridge is correspondingly bigger.

Playing of the seven-stringed violin requires more strength than the four-stringed one. The fingers have to be imposed more pressure. Equal pressure has to be imposed on each pair of strings so as to produce the right sound. As the pairs of strings are bowed together, the sound produced is more voluminous and fills the atmosphere with more sound making it more audible and hence no amplification is required. Without amplification, the rapport built between the artist and the audience is also stronger.

The playing of a seven-stringed violin requires more technique too. The glides are heard with more clarity in a seven-stringed violin. Joy of playing is achieved when played
with speed and with glides.\(^1\)

The gamakas are more difficult to play in a seven-stringed violin than in a four-stringed one. It was possible only for a man like Chowdaiah, who mastered the violin. This is perhaps one of the reasons why it has not been used in Hindustani music.

**Bowing techniques:**

As Chowdaiah and R.R.Keshava Murthy were the products of the same school, the bowing techniques of both these violinists are similar. When you bow, the sound produced when bowed close to the bridge is different from the one produced when bowed in between the bridge and the chest board. The sound produced here is softer than the sound produced when bowed close to the bridge. The sound is still softer when bowed on the finger board.

While bowing, care has to be taken to bow while the left hand fingers are pressed with equal pressure on the three pairs of strings. As each string is of a different thickness, the left hand fingers have to be most precisely moved applying just enough pressure while bowing. More pressure has to be applied on the bow too accordingly. Bowing has to be done with a little more pressure than what is applied in a bow used for afpur-stringed one.

Chowdaiah was a master of both the left hand technique and the right hand technique. His performance in the upper positions of the violin and the performance of Tana, the wavy movements of the bow have a fascination and charm. \(^2\)He was a creative artist.

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\(^1\)Interview with Jyothsna Manjunath, seven-stringed violinist on 17\(^{th}\) November, 2013.

\(^2\)Interview with M.R. Subbaratnam on 31-10-2010.
Tuning:

The strings are typically tuned to the following pitches:

1. **In a four-stringed violin:**
   - The first string - Madhya sthayipanchama.
   - Second string - Madhya sthayishadja.
   - Third string - Mandra sthayipanchama.
   - Fourth string - Anumandra rashadja.

2. **In a seven-stringed violin:**
   - First string - Madhya sthayipanchama.
   - Second string - Mandra sthayipanchama.
   - Third string - Madhya sthayishadja.
   - Fourth string - Anumandra rashadja.
   - Fifth string - Mandra sthayipanchama
   - Sixth string - Anumandra panchama
   - Seventh string - Mandrashadja.

In the seven-stringed violin, the first, second and third strings each (from right to left) had a corresponding parallel string tuned to the respective lower octaves. This involved applying greater pressure on the fingers of the left hand and also firmer bowing, thereby restricting the incidence of gamakas. Perhaps this was the reason why this violin was not in continued usage after V Sethuramiah.

The second and the fifth strings and the fourth and the seventh strings are tuned to the same mandra note-ie.. They sing the mandrapanchama and mandrashadja respectively.

The first string is an iron one. Assuming that this is Panchamaswara, if the
finger is placed at the height of five fingers, it plays the Tara Shadjaswara. The cork of the next string which is made of vein is turned to tune the corresponding lower note. The same attempt is to be repeated with the third string too. If the cork of the third string is turned so as to synchronize with the second, it plays the Mandrapanchamashwara. The fourth string is a silver string. This should give the Anumandrashadja.

**Difficulties associated with playing and learning the instrument:**

Seven-stringed violin is known for its sonorous sound. But the difficulties and challenges associated with the playing of the instrument are many:

By contrast with the conventional four-stringed violin, the seven-stringed devised by Chowdaiah has several features to the disadvantage of the player. The three additional strings are added to the upper three and are tuned to an octave below. This gives it a double-reed effect. But the snag is that about a tenth of an inch separates the double strings and they have to be played in perfect unison, with the stopping fingers perfectly parallel to the bridge. Otherwise they emit discordant sounds.

The player has to move the edges of his fingernails on the strings — a painful experience for any beginner. The metal string and the banzo string of the instrument need to be pressed down by the flesh of the fingertips, which results in painful calluses. The player needs abundant strength to press the two strings steadily with precision. These accounts for the few successes amongst seven-stringed players. Secondly, the glides, that are an integral part of Indian music, are difficult to achieve in this instrument, when compared to a four-stringed violin. Perhaps this is one of the reasons why we do not find many seven-stringed players today. Thirdly, this is a fast age. The students of today want to learn everything very fast. It should not be surprising if in this age of ‘fast’ of everything, they want quick results which likely would be more easily accessible to them if they take up a less difficult instrument.
A related phenomenon is the paucity of teachers from whom to learn to play this instrument. In our tradition where the importance of knowledge handed down from Guru to shishya is paramount, this shortage of traditional teachers and teaching methods means that the required competence, as well as the art itself, is gradually dying out. Another important reason for the decline or gradual disappearance of the instrument is that it is becoming increasingly difficult to procure many of the materials that go into their making, with the great rain forests of Burma and Assam vanishing rapidly, where one can get the seasoned teak or ebony blocks which used to be crafted so lovingly into the instrument. Besides, the gourds that go into making the resonators of this instrument grow slowly and only in particular regions of the country. There is also the observable fact that the music produced with this instrument does not appeal to a large majority of present day listeners, who prefer immediate gratification to deep satisfaction. The history of musical instruments all over the world shows that musicians, as a breed, are adept at adopting existing instruments to suit changing needs and changing musical tastes.

Many younger musicians of recent times too are quite aware of technological innovations and the latest scientific discoveries, absorbing new ideas. N.Ravikiran, for example, now uses a piece of Teflon, instead of traditional bone or ebony as the slide bar in playing the Chitraveena. The sound is smoother, the glides are silken. And this is not the end of his quest. If he comes across a better material, he would use it. Suma Sudhhendra claims that problems of travelling with her traditional veena, led her to develop the present version of her veena, in which the primary resonator has been replaced by electronic amplifying devices: while the hind resonator, made of fibre glass, can be unscrewed and packed away in a special box. Though Karnataka musicians are more traditional when it comes to music, they are also much more inventive than their North Indian brethrens in the matter of using innovations to improve the performance.
They are also wonderfully articulate and have full intellectual grasp of the content and styles that they deal with. So was Chowdaiah. While he was well aware of the difficulties in playing the instrument, he innovated it not only because it was the need of the hour (amplification being poor those days) but because he was adept in adopting the existing violin to suit changing needs. While Ravikiran and Mandolin Sreenivas made the technological innovations belonging only to the recent generation, Chowdaiah, who belonged to two generations behind created history about a century ago.

As that era was devoid of electronic amplification, Chowdaiah perfected fine tuning the bridge and the three extra strings in such a manner that the acoustic output was subdued in volume as well as brightness and also richer in sustain. The distinctive sound of the Chowdaiah violin however is also the product of more obvious changes—those in the tuning of the strings. With these structural and tuning changes aimed at executing his vocalized vision of music, Chowdaiah created an entirely new instrument with a distinctive sound and acoustic ambience. As a result, just the opening bow of the instrument was sufficient to identify the violinist.

**Posture:**

While the westerners play the violin holding it in hand in the standing posture, Indians play the violin in ‘*Padmasana*’. ie. We sit down on
the floor and play. The seven-stringed violin is also played in the same posture. The bottom is made to rest on the hind part of the foot. The top of the violin is held close to the neck, the chin-rest resting on the chin while playing. The bow is held in the right hand. The bow runs with a distance of about an inch from the bridge. The thumb of the right hand is not supposed to be folded. The bow has a place for the thumb of the right hand. The other three fingers play their part in holding the weight of the bow. The bow should be made to run smoothly on the strings, avoiding the harsh sound.

**Advantages:**

The advantages of seven stringed violin are a very few. It can produce higher volume of sound. Secondly, more swaras or notes can be played clearly, i.e., the musical lyrics with swaras can be heard clearly. More number of high notes can be attained. The comfortability of playing is increased. In a standing performance, it allows the player to move comfortably as the ease of playing is increased. This type of violin can reach notes lower than other instruments like cello, violin, etc.

**Disadvantages:**

The strings are very close to each other, hence bowing becomes more difficult and it may even touch other strings. This kind of violin needs a lot of practice in case of bowing and is, therefore, is not recommended for beginners. Playing on the end strings is especially difficult as one must lean to play these strings.

**Acoustics:**

The main function of a violin or bass bow is to induce a sideways or transverse motion of the string. Rosin placed on a bow ensures that static friction with the string may be much greater than kinetic friction.
Consequently, in a cycle of normal playing, the string at the position of the bow travels with the bow at a nearly constant, low velocity in one direction (the stick phase), then slides rapidly past the bow in the opposite direction (the slip phase).\footnote{Bavu, E., Smith, J. and Wolfe, J. "Torsional waves in a bowed string" (2005, Acustica, 91, 241-246).}

However, the bow acts on the surface of the string, rather than at its centre, and so also must exert a twisting or torsional force. This torque excites additional torsional or twisting waves that travel up and down the string. These torsional waves exert only a small torque on the bridge and so produce little sound by themselves. Nevertheless, they can have an important effect on the overall sound produced.

**Playing Gamakas on the seven-stringed violin:**

The *Jantiswaras* and the *Gamakas* are difficult to achieve for a seven-stringed violinist. *Gamakas* are glides in *Swaras*. The glides can be of two types - Below the swaras and above the swaras.

In Jantiswaras, as both are the same swaras, the same finger is used. If a swara is to played with Gamaka, the corresponding finger should touch the swara above and come back to the original swara.

This act gives the violin the aesthetic sound of vocal music. Gamakas are more difficult to achieve on a seven-stringed violin than in a four-stringed one as the fingers need to be pressed down with more pressure and equal pressure needs to be applied on the double strings while playing.

The metal string and the banzo string of the instrument need to be pressed down by the flesh of the fingertips, which results in painful calluses. It requires a perfectionist like Chowdaiah to achieve mastery over this instrument.
Nineteen-stringed Violin:

Chowdaiah continued experimenting with his instrument and produced a behemoth with nineteen strings. After successfully launching the seven-stringed violin, Chowdaiah continued his experimentation and after sometime he incorporated twelve strings like what we find in sitar: So a violin with nineteen strings was designed. In addition to the seven strings, this violin had six strings on either side. These extra strings were added for Nada pushti. He demonstrated it at Madras in a concert.1 This violin had, in addition to the seven strings, twelve resonating strings fixed symmetrically on either side of the bridge- six on each side. No bowworkor fingering filigree was done on them. They were appropriately tuned to generate complementary undertones as he proceeded playing on those strings.

The addition of the strings naturally enhances the depth of tone. This violin was richer in timbre, brassy in texture, and may be hard for weaker voices to cope up with. But both these inventions of Chowdaiah- viz. the seven-stringed and the Nineteen-stringed violin came at the right time, when the advent of the microphone lowered the shruti and the accompanying instruments found it hard to produce tones to match the low voices of the vocalists.

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1 At which concert is not known. This information is taken from G.T.Narayana Rao’s ‘Chowdaiah’s Krishna Sarathyα’-from the book ‘SangeetaratnaT.Chowdaiah’ by K.Srikantiah, page no.62.
On his nineteen-stringed violin, Chowdaiah demonstrated some of his pet kritis like ‘Vatapi Ganapatim’ in Hamsadhwani and ‘Raghuvarasudha’ in Kadana Kutoohala and Brochevarevarura in Kamas. In 1960, Chembai Vaidyanatha Bhagavat’s concert was arranged at the Gubbi Veeranna theatre with Chowdaiah’s accompaniment on violin and Palghat Mani iyer on mridangam. Chowdaiah played with his nineteen-stringed violin for this concert.¹ On seeing the instrument, Chembai asked Chowdaiah, “What is this?” “My nineteen-stringed violin’, came Chowdaiah’s reply. “May all these strings convert themselves into a garland and decorate your neck”, said Chembai with utmost affection.

But facing enormous problems with the tuning of the violin, he gave it up. He approved and enjoyed playing his invention of seven-stringed violin. He had enormous self-confidence. It evidenced his greatness, perseverance, practice and scholarship. He used to

¹Rajashree’s book ‘Mysooru T. Chowdaiahnavaru’ page no.100.
practice with utmost concentration and achieve the impossible. He became famous with this experiment.

When he played violin in Tamilnadu, even his accompaniment was the dominating factor. People clamored to listen to him. The very sight of him brought applause. His melodious music and his stage-excellence were all due to his seven-stringed violin. The words of Sheshanna that “chowdaiah will gain fame through this violin’ were amply fulfilled.

As P. Sambamurthy said, he accompanied a galaxy of musicians but he became a trailblazer when he designed a seven-stringed violin. He evolved his own peculiar and exhilarating method of bowing while doing Tanam for which people were clamoring and were never tired of.

Chowdaiah took the help of Rangappa to manufacture his invention.1 He got several more seven-stringed violins made by him and presented them not only to his disciples V. Seturamiah and Venkata Rama Shastri,2 but also to senior violinist Dwaram Venkataswamy Naidu and appealed to him to practice with that violin. He had 6-7 violins with him. One of his violins is with Sri Sri Ganapati Sacchidananda Swamiji too. Another of his violins is donated to The Mysore University, along with his walking stick and a lunch basket made of cane, which Chowdaiah always used to carry while travelling.3

Of late, the seven-stringed violin has gone further into oblivion. There are a few art forms that survive for a short duration. This short life span can be attributed to the art form not finding favor with contemporaries, and, hence little interest shown by those of the next generation. Even those that did earn the commendation of fellow artists and admirers slide into oblivion.

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1 Senior violinist Subbaratnam’s interview 30-10-2010.
3 Interview with Anand, grandson of Chowdaiah on 11-10-2013.
with the passing away of stalwarts who were repositories of the art form. The passing away of Chowdaiah and his disciple Palghat C.R. Mani Iyer pushed the art of playing on the seven-stringed violin, invented and perfected by the legendary Mysore T. Chowdaiah, to the verge of extinction.

One of Chowdaiah’s seven-stringed violins is now under the custody of The Academy of music, Bangalore.\(^1\)

This violin was bought for Chowdaiah by his son-in-law from Germany in 1958.\(^2\) Bhimegowda, husband of Chowdaiah’s daughter Pankajamma, went to Germany in 1957 and brought this violin for Chowdaiah from there in 1957 on Chowdaiah’s request. The specifications with regard to the making of the violin were mentioned by Chowdaiah to the maker of the violin on phone. The cost of this violin was then Rs.3000/.

The original Indian violin designed by Chowdaiah and made by Rangappa is in the puja room of his house at Chamarajapuram, Mysore.

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- ‘Musical instruments’ by B.C. Deva.

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\(^1\) Article- Chowdaiah’s violin takes a bow at museum’ by Sriram in The Hindu’, November 21, 2012

\(^2\) Interview with Anand, grandson of Chowdaiah on 11-10-2013.