

## CONCLUSION

Music is mainly a physical, metaphysical and psychological aspect of our life interrelated with sound and perceived by ear. It is an unthinkable matter to imagine music without sound, as it is the main source of music, which is also known as nada. Not only the music but all the phenomenon of the universe is based on nada.

With the development of primitive people's consciousness some demand might have emerged to accompany their rhythmic emotions, which caused to create the instrument. Instruments are classified mainly in four divisions – Tata, Shusir, Ghana and Avanaddha, having prevailed from ancient times. In modern age Tablā has occupied a very prominent place among all percussion instruments.

Various opinions prevailed in regard to the origin of Tablā. Some opine that, Tablā was invented by Amir Kausro and some are for Sudhar Khan Dadi or by Khabbe Hussain Dholakia and even by some opinions, three different Khusros are found and according to this belief Tablā was invented by one of them. But most of the opinions are connected somehow with different contests where defeated player divided his instrument (Pakhāwaj or Dholak) into two parts and made a new instrument then named as Tablā. As we know Tablā is an instrument which is played by fingers and after cutting two or three fingers of a hand it is normally not possible to play. And again, when two or three strips from an instrument were cut-off, it stopped sounding. So, after cutting a Pakhāwaj it will not be in a position for sounding. So, the reality of this description is

not credible in any way. After observing different references it is difficult to say that, the present Tablā is developed by a single person. After a long period with several corrections by different correctors Tablā may have got today's esteemed position.

In context with percussion instrument and the sense of left and right, the importance of the circular form may have been established right from the beginning. Tablā is an Arabian word evolved from the word 'tabl'. The position of the word Tabl or Tablā is consistence with description of ancient time. But the present form of Tablā although described by scholars and researchers with reference to evolution, uses, and position in the form of various anecdotal competition, sculpture and gradual development, but, it does not prove anything about Tablā confidently prior to 18<sup>th</sup> century A. D.

Through this thesis by observing lexicographic and other views it is found that the word Tablā's existence was available in very ancient period even in Mesopotamian culture. And most of the references are connected with Arabian countries. So, after observing different opinions it can be said that Tablā may have come to India with the Muslim people from Arabia. History says, from 8<sup>th</sup> century A.D. Muslim people had started to come to India. But the beginning period was not quite stable. So, it may be conjectured that 9<sup>th</sup> or 10<sup>th</sup> century A.D. might be the perfect time for the arrival of Tablā to India, but, could not come to notice by somehow. It is natural, as we know that it takes time for a new instrument to become popular.

The influences on Tablā of pushkar vadya have been recognized by the scholars. It also might be possible that the Tablā was modified from this instrument or the instruments which prevailed then as named tabl, Tablā was created from one of them by modifying a little or more and introduced in Indian music.

It has already been proved several times that Tablā is a harmonic instrument and can produce five or seven overtones by different experiments. But, through this research work with the help of modern technologies it is observed that, Tablā has the ability to create eleven or more overtones. It is found several times about eight or nine or ten overtones from different readings for different alphabets also. After analyzing wave spectrums and amplitudes created by different alphabets, produced from Tablā, Pakhāwaj and Dholak, it was found that Tablā can make highest numbers of overtones by its resonant and sonorous sounds as well as damp sounds. The combination of these two types of sounds has the power to please the listener's mind. In experiment it is also found that, alphabets which are resonated openly like taa, tin, etc. are able to create overtones but, those are played on shyāhi and resonate closely able to create damped sound only. It is also found that, Tablā, where shyāhi is stored little or incompletely, reduced producing overtones and where alphabets are produced from a Tablā by except shyāhi, lost the quality to produced overtones approximately. Strokes played simultaneously like dha, dhin, etc. or strokes made quickly to play compositions like Peshkar, Quaida, etc. it is found that, even their individual overtones create distinctly but amalgamate with each-other so roughly that it is tough to make readings from them. By observing the frequencies and overtones on 3D spectrums made by alphabets of Tablā it is found that Tablā can produce nearly harmonic overtones also.

It is also remarkable that, the shyāhi centrally and eccentrically loaded on dayan and bayan Tablā respectively are able to produce all types of bols and even gamak on bayan with ease. It

is also the reason to increase the musical effects by prolonging the duration of the tone. There are several reasons for Tablā to gain fame as enormous speed, but this treatment of shyāhi on Tablā which made it indispensable among all percussion instruments. And it may be possible that the ancient Pūshkar-vadya had inspired to use shyāhi on Tablā.

The fundamental phenomena of acoustics are sound. As it is impossible to think any music without sound, without ear it is impossible to hear any music. Acoustics determine the difference between musical sound and non-musical sound, periodic and non-periodic vibration and their consciousness. The study of the materials of a Tablā, where acoustics deals, with the study of the production, propagation and preparation of sound, is an important part of music. Acoustics of Tablā also determines the relation between the sound it produces and vibration, loudness, diffraction, resonance, etc. It also deals with the construction of a Tablā instrument, the frequencies produces from Tablā, the quality of its membrane, the tension created on its membrane, etc.

Acoustically all musical sound is classified by their three qualities, like, Loudness, Pitch, and quality. Loudness is a psychological requirement for music by which we are capable to increase and decrease sound's volume. It is the loudness which determines how a note of a Tablā instrument can be heard properly. Pitch is one of distinct part of music. A Tablā instrument has pitch a range of one octave. Although, it can play more than one octave but the sweetest sound is produced only in one octave range. Quality, which is also known as timbre

is another important character for Tablā instrument. The vibration of a Tablā-pūdi is very complex. Vibrations that are too slow, too weak or too fast do not produce audible sound. However, the making of Tablā pūdi admits of continual improvement. It is a highly specialized craft to make a Tablā pūdi. Usually, the quality of a Tablā sounds is already determined by the instrument maker at the time of its making.

It is most commonly thought to have developed Tablā in Delhi region in the mid eighteenth century. In the beginning, much of the idea for its repertoire was borrowed and adapted from other percussion instruments including pakhawaj, dhol, dholak, etc. Nevertheless, over the period since then, an enormous repertoire of materials particularly to the dynamics of the Tablā has been built up by Tablā players. And this immense range of compositions has been made more affluent by the evolution of several individual regional performance styles, recognized as gharanas. There are six renowned Tablā gharanas namely, Delhi, Ajrada, Farukhabad, Lucknow, Banaras and Punjab. At the beginning playing style was known as Bāz. Day by day gharana was evolved by the influence of Bāz. Two bāz is already famous for Tablā all over the India, but there are another two bāz named padal-baz and nachkaran-baz, preserved distinct qualities to famous as different playing style. These styles have played a most important role in the development of Tablā playing with regard to technique and repertoire.

Tablā is such an exceedingly flexible instrument that it accompanies vocal music, instrumental music as well as dance music and Tablā is an instrument which stands out by itself as it can also be performed as a solo instrument. At present day it is not novel news that Tablā is played as a solo instrument, but, however, Tablā has a significant role as a swara-vadya also. At

the time of accompanying if the Tablā detuned the total musical environment is affected so badly then, where it demands to adjust the Tablā in perfect swara. By this way it is found that, there is a great importance to maintain swara by Tablā. So, it can be said that, Tablā is a swara-vadya also.

Tablā is an instrument where both parts can be played by fingers. Tablā can be played by open style (Khula baz, like pakhāwaj style) as well as close style (Band-Baz style, where low resonance is produced) also, which makes a sweet environment on its playing

To conclude, we hope that our modern scientific world shall reach a point where it could tap the potency and effects of music for the betterment of society and make our world a better place to live in, in harmony and peace with the elements around it.

In the field of acoustics of Tablā lot of work has to be done because no serious work is done in this field till now. There is still possibility to go further with the help of acoustics, physics, metaphysics and circle shape of pūdi in the studies. For doing an acoustical experiment on Tablā I visited several places and met many teachers of physics but got reply that there is no chance to do so. But through this humble attempt something has been done and further possibilities remain for future studies of this subject.

Tablā is a scientific instrument and its different compositions, layakariyas, etc. work scientifically in music. So, with the help of modern science it may reach such a position from where new revelation of music will be started.