THE INDIAN DRUMS-TABLA-AND PLAYING POSITION



PLAYING POSITION

The table player sits cross-legged on the ground, or on a cushion or blanket, with the dains and bahya in front of him, the dains on the right and bahya on the left (the other way round if left handed). The two drums sit in two rings made of cloth cushioned with stuffing, so that the drums can be orientated to suit the player. The player's back should be straight, and the elbows loose and relaxed. The drums should be positioned so that the polms of the hands can rest flat on the singahis without bending at the wrists. The bohya should be turned so that its singhi is away from the player. The rings should hold the drums firmly enough that they do not move about during playing.

THE CHALS AND THEIR BOLS

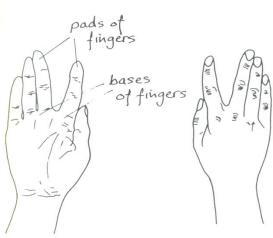
The skins of the drum-heads (PURI) are struck by definite and prescribed finger movements, which also involve certain wrist and arm actions, and the various strokes are Known as the CHALS.

The particular sounds (percussive notes) obtained are symbolised and represented as mnemoric monosyllabic names (onomatopoetic) Knowns as BOLS. The bols are used in representing, constructing and memorising the basic rhythms called TALS, and their controlled extemporisation into various forms of rhythmical development.

Types of Hand Movement in Tabla Playing

In tabla playing, the right hand operates as though it were constructed in two parts. The thumb and forefinger together form one part; the second, third and fourth fingers the other. This division provides the right hand with two basic ways of hitting the drum. These two strokes produce a range of drum-sounds according to whether the stroke is damped or ricochet, and by varying the region of the drumhead hit. The strokes delivered by the fingers of the right hand result mainly from movements which occur at the elbow, coupled with wrist movements in some cases. Rapid alternation in hitting the drum with the two parts of the hand is of fundamental importance.

To place the right hand in its neutral position it is held palm downwards, with the palm flat and the fingers extended, parallel with the drum-head and two or three inches above it. The 1st and 2nd fingers are now spread as widely as possible, keeping the thumb pressed against the 1st finger, and the 2nd, 3rd and 4th fingers pressed together. The division of the hand into its two parts becomes obvious. This position is neutral in the sense that most of the right hand chals start from this position.



The neutral position for the left hand is with the hand resting palm downwards on the drum-head, with the fingers extended. The palm should cover the siyahi, and the wrist should rest on the chantiof the bahya. Movements of the left hand occur mainly at the wrist.

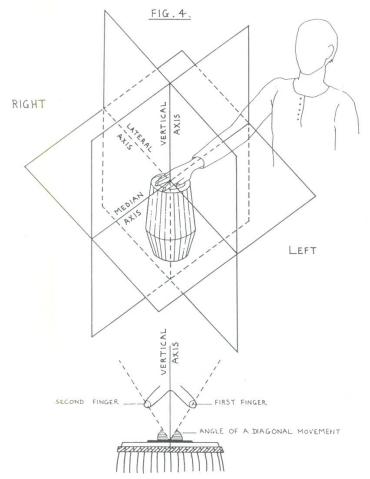
Fig. 3

In almost all right hand chals, it is the <u>pads</u> of the finger-tips which hit the drum, the pad being the fleshy region between the 1st joint of the finger and near the tip of the finger. In **Ghe**, an important left hand chal, it is the tips of the fingers which deliver the blow. In Siyahi Ta, and in Tin, important right hand chals, the tip of the 3rd finger hits onto the lao. The nails of these fingers must be trimmed short to prevent damage to the drum-head.

A simple way of classifying the chals gives two types of movement: Supported and Unsupported. In Supported movements, the hand is supported during the downward stroke by another part of the hand or arm which rests on the drum-head. This applies to Chals 2, A and B. In Unsupported movements, the hand moves freely as the downward stroke is made. This applies to Chals 1, 3, 4, 5, 6 and 7. Actually, Chals 1, 3, 4 and 5 do exhibit a special type of "transitory" support, as discussed later, although they are classified here as being Unsupported.

Both Supported and Unsupported movements end in two ways. In a Damped stroke, the movement ends with the hitting part of the hand still in contact with the drum-head. Chal B is a Damped Supported stroke, while Chals 6 and 7 are Damped Unsupported strokes. In a Ricochet stroke, the hitting part of the hand moves rapidly away from the drum-head immediately after the stroke has been delivered. Chals 2 and A are Ricochet Supported strokes, while Chals 1, 3, 4 and 5 are Ricochet Unsupported strokes.

To aid our descriptions of the chals, we have adopted the spatial axis shown in Figure 4. This is a view of the right hand in the neutral position over the daina that would be obtained by a person facing the tabla player. Right and Left refer to the player's right and left. Movement of the hand can be up and down along the vertical axis, from side to side along the lateral axis, or along the axis of the forearm in the median axis. Many strokes involve the rotation of the forearm around the median axis. Diagonal movements are movements in the lateral plane which strike the drum-head at an angle, the size of this angle being measured from the lateral axis. Thus a 60° diagonal stroke is one in which the fingers strike the drum-head at an angle of 60°, see Figure 4.



DIAGRAMATIC VIEW OF DAINA ALONG MEDIAN AXIS.

In the descriptions of the chals, the fingers are referred to as F1, F2, F3 and F4, and collectively as F23, F234, etc.

Detailed Descriptions of the Chals

Chal 1 Siyahi Ta or Na

F1 of the right hand hits the siyahi with a ricochet stroke with transitory support from F3 on the lao and the thumb on the gazera. Initial Position: The hand is held 2-3 inches above the drum-head. The thumb, F1 and F2 are spread out. F1 is held a little lower than F2. F2 is bent slightly. F3 is held at right angles so that the fingertip projects directly downwards, See Figure 5.

Movement: Movement occurs at the elbow. The hand is brought rapidly down onto the drum-head so that the thumb hits the gazera, F1 hits the siyahi, and F3 hits the laosiyahi border, all at the same time, see Figure 6.

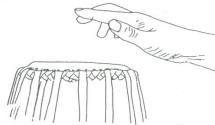


FIG.5



contribute to the drumsound. F1 immediately ricochets off the siyahi, but the thumb and F3 remain in contact with the drum-head, see Figure 7. The thumb and F3 provide F1 with transitory support. F2 should not contact the drum-head at all.

All three points of impact

Chal 2 Chanti Ta or Na

F1 of the right hand hits the chart with a ricochet stroke while supported by F3.

Initial Position: F1 is stretched out above the chard, F2 is stretched out above the siyahi, F3 is bent with the tip held on the drum-head at the border between the siyahi and the lao to provide support.

See Figure 8. F4 may also rest on the drum-head. The fingers are spread.

Movement: F1 strikes

directly downwards onto the chart to hit it with the pad of the fingers, see



r 0

Figure 9, and immediately ricochets. The movement is achieved mainly by a rotation of the forearm around the median axis. The thumb should be joined to F1, but does not actually hit the drum-head. It is important that F2 does not hit the siyahi. At the end of the movement the hand returns to its initial position.

Chal 3 Tin

F1 of the right hand hits the siyahi with a ricochet stroke with transitory support from F3 on the lao and the thumb on the gazera.

Initial Position: Exactly the same as for Chal 1.

Movement: The movement of the hand in this chal is almost exactly the same as in Chal 1. The difference lies in a small amount of movement of the hand in the median axis. At the moment of impact of F1, F3 and the thumb, the hand is pushed forward across the drum-head by about a quarter of an inch. The effect of this is to increase the pressure of F3 on

the lao, and so to increase the tension of the drum-head, with the result that the pitch of the note produced by this chal rises somewhat after the initial impact. It is not easy to get clearly distinct sounds from Chals 1 and 3.

Chal 4 Din, Di or Thun

F1234 of the right hand hit the siyahi with a ricochet stroke with transitory support from the edge of the palm.

Initial Position: The hand is held in the neutral position above the drum-

Fig. 10

head with all the fingers and the thumb pressed together. The fingers are slightly curled, see Figure 10.

Movement: The hand is brought directly downwards so that the pads of the fingers hit the siyahi, while at the same time the edge of the palm and side of the thumb hit the chartiand gazera, see Figure 11.

This downward stroke is achieved by movement at the elbow. When the finger-pads hit the siyahi, the fingers are suddenly straightened, which immediately reverses the direction of their movement, making the fingers ricochet off the siyahi. During this reversal the edge of the palm and side of the thumb remain in contact with the chantiand gazera, thus providing transitory support for the fingers, see Figure 12.

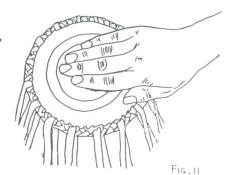


FIG. 12

Chal 5 Ti or Tu

F1 of the right hand strikes the siyahi with a ricochet stroke with transitory support from the side of the thumb on the gazera.

Initial Position: The hand is held in the neutral position. F1 and F2 are spread by about half an inch, the thumb is pressed against F1, F234 are pressed together, see Figure 13. F1 is held a little lower than the other fingers.

Movement: In the downward stroke, the hand is brought towards the drum-head so that F1 hits the centre of the siyahi with a diagonal stroke

of about 60°, the hand moving across from left to right. Simultaneously,



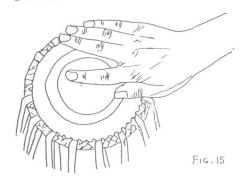
Fig.14

the ricochet action of F1, see Figure 14.

The ricochet of F1 from the siyahi is accomplished by a straightening of the finger, coupled with a small twisting movement of the hand, which pivots around the point of contact between the thumb and the gazera, see Figure 15, which shows the hand in its final position.

the side of the thumb strikes the gazera. F234 do not hit the drum-head. This downward diagonal stroke is achieved by movement of the elbow. F1 immediately ricochets off the siyahi, while the thumb remains in contact with the gazera to provide transitory support for

F14.13



Chal 6 to or ti (in some phrases occurs as -ta, na or ra)

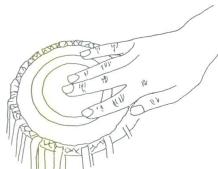
F23 of the right hand hit the siyahi with a damped stroke with no support.

Initial Position: The hand starts from the neutral position, with F1 and F2 well spread, F23 joined together, and F4 separated from F3. The centre of the siyahi should lie below the middle of the line between the tips of F1 and F2. F23 are held a little lower than the other fingers, see Figure 16.

Movement: F23 are slapped together down

FIG. 16

onto the siyahi in a diagonal movement of about 60°, the hand moving



across from right to left. This movement is achieved at the elbow. The fingers should be curled slightly, so that it is mainly the pads of the fingers which make contact, rather than the middle parts of the fingers. The tip of F3 should strike the centre of the siyahi, see Figure 17.

The edge of the palm hits the gazera. In the final position, F23 remain on the siyahi. F1, the thumb and F4 are raised above the drum-head, see Figure 18.



Chal 7 te, re or ra (in some phrases - ta)

F1 of the right hand hits the siyahi with a damped stroke with no support.

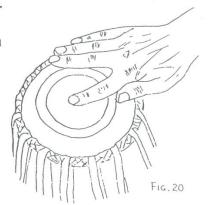


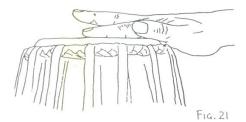
F1G.19

from left to right, see Figure 20. The side of the thumb hits the gazera. The movement is achieved at the elbow. F1 should be curled slightly so that it is mainly the pad of the finger which makes contact, not the middle of the finger. In the final position, F1 remains on the siyahi, with the thumb on the gazera. F234 are raised above the drum-head, see Figure 21.

Initial Position: As for Chal 6, the movement starts from the neutral position, but now F4 is joined to F23. F1 should be a little lower than the other fingers, see Figure 19.

Movement: F1 is slapped down onto the centre of the siyahi in a diagonal movement of about 60°, The hand moving across





te te or tere or tira

The most important complex stroke in tabla technique consists of a rapid alternation of Chals 6 and 7. The ability to make this double stroke is of fundamental importance in tabla skill. In its simplest form this movement is called to te, which consists of Chal 6 followed by Chal 7. Later, these two strokes are used to elaborate a four stroke drum phrase called time kita, which consists of the sequence of Chals 6, 7,3 and 6. For ease of speaking, to te in this context is called time. time kita is itself used as a unit in the elaboration of more complex drum phrases.

Chal A Ghe, Ghior Gi, Ga

The tips of F23 of the left hand hit the lac of the bahya with a ricochet stroke supported by the wrist.



Initial Position: The wrist lies across the edge of the drum-head, the hand is arched up and back, and the fingers are bent, as shown in Figure 22. The palm lies over the siyahi.

Movement: F23 hit down on to the lao on the far side of the siyahi, hitting it with the finger-tips, see Figure 23. The

finger-tips ricochet moving in towards the palm, see Figure 24. The downward and ricochet parts of the movement are achieved mainly at the wrist, the ricochet action of the fingers is assisted by a small bending movement of the fingers.



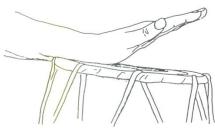
FIG. 24

Sometimes the Chestroke is combined with a movement of the ball of the thumb across the lao, which starts simultaneously with F23 making contact with the lao. This produces the "galosh leaving the mud sound" so characteristic of tabla. When Chestrokes are played in rapid succession, the stroke may be delivered alternately by F23 and F1.

Chal B ki, ke or ka

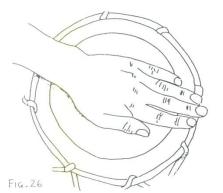
The palm and fingers of the left hand slap down onto the bahya with a damped stroke supported by the wrist.

<u>Initial Position</u>: The wrist lies across the edge of the drum-head, the

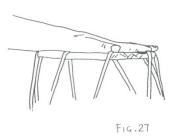


hand is arched up and back, with the fingers straight, and the fingers and thumb joined together, see Figure 25.

F1G.25



Movement: The hand is slapped down onto the drumhead, the palm of the hand covering the siyahi, and the finger-tips stretching out to the chant, see Figures 26 & 27.



Compound Chals The chals so far described are played singly. Various combinations of left and right hand strokes are found. The most important of these are:

Chal 1A	Open Dha	Chals 1	and A	played	together
Chal 2A	Chanti Dha	Chals 2	and A	played	together
Chal 3A	Dhin	Chals 3	and A	played	together

Chals 4A and 5A (Dhi) are important in the kayadas. We also find Chals 5B (Tin), 6A (Dhet) and 7A (Dhe).

4. KAYADAS

Developing the Motor Vocabulary

The fundamental objective in the acquisition of musical skill is to build up connections (in the brain) between patterns of musical sound and movements of the hands on the instrument which produce them (other parts of the body also being moved in playing many instruments.) Just as the infant learns to orientate his movements correctly in terms of visually perceived space, so the musician must acquire audio-motor coordination by learning to orientate his movements within the sound range given by the spatial layout of his musical instrument. In the case of tabla, audio-motor coordination is developed by practice of the Kayadas, a set of exercises set in Tin Tal. From learning these, the player acquires the vocabulary of basic drum phrases which he draws upon for improvisation. You should note that the kayadas are simply exercises, and a tabla player would not usually play a kayada as such in performance of a raga. (Not strictly true — performance Kayadas ore called BANT)

The kayadas are arranged so that the player progressively builds up the key phrases of his motor vocabulary. A drum phrase may be regarded as a sequence of movements which are grouped as a unit. For example, Kayada 1 develops the double movement tete. In Kayada 2, this is elaborated into the phrase tirakita, and in Kayada 3 is further elaborated into tirakitataka. Later, these develop into more complex phrases such as tirakitatakaTiNa and tirakitatakaTatirakitaDhatit. The kayadas also become progressively more complex in terms of the range of chals used, and the number of separate chals made in each 16 matra cycle of Tin Tal.

Another important aspect of the kayadas is that they embody the rules which characterise the structure of Tin Tal. In particular, these rules show how to weaken the stress during the khali line. The structure of kayadas is discussed below. Mastery of the kayadas should give the student a thorough understanding of these structural rules. This will allow him to make up new kayadas, for the total possible number of kayadas is very large. At a later stage, these rules form the basis for playing improvisations in Tin Tal for the accompaniment of a raga.

General Method for Learning Kayadas

Learning to play the first kayada involves two things. First you have to learn to make the chals correctly; and second, you need to learn the sequence in which the chals occur. Kayada 1 will be the most difficult to learn; Kayada 2 will be easier because it builds up from the basic set of hand movements which Kayada 1 establishes. The more material you learn, the easier the learning of new material becomes.

For learning the sequence of chals in a kayada, the tabla player has recourse to a special aid. He first learns to speak the bols for a given kayada, and only after he has mastered the recitation of these perfectly from memory does he start trying to play the kayada on the drums. There are two reasons why learning to speak the kayada first makes it easier to learn to play the sequence: firstly, you are used to speaking and will have little trouble in saying the bols (which is not at all the case for playing the chals); and secondly, your memory for new verbal material is much superior to your memory for new sequences of hand movements. In a sense, the spoken bols form a framework of the kayada to which you later attach the appropriate hand movements. This method of training, in which the musician first learns to sing or recite the material he is going to learn to play, is used extensively in North Indian classical music.

Structure of the Kayada

As already mentioned, the arrangement of bols in a kayada obeys a set of rules which define the structure of the rhythmic cycle of Tin Tal. Let us take Kayada 1 as an example to illustrate this point. The bols and chals of Kayada 1 are as follows.

Line 1	1 Dha 1A	2 Dha 1A	3 †e 6	4 t e 7
Line 2	5 Dha 1A	6 Dha 1A	7 Ti 4	8 Na 1
Line 3	9 Ta	10	11 .	12
Line 3	1	Ta 1 14	te · 6	t e 7
Line 4	Dha 1A	Dha 1A	Dhi 4A	16 Na 1

Note the following features of the structure of the kayada.

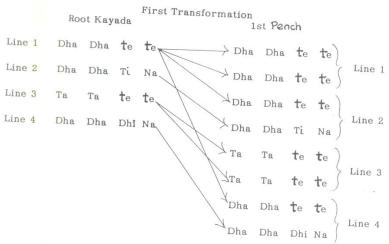
- 1. The 16 matras fall into 2 groups of 8 matras which have very similar structures. Line 1 is similar to Line 3, and Line 2 is similar to Line 4. First 8 matras = Khuli, Second 8 = Mundi
- The 1st (sam), 5th and 13th (tali) beats are played with strong chals which use left and right hands together, the 9th (khali) beat is weak and played only with the right hand.
- 3. The 3rd Line is the khali line, and while its structure is similar to Line 1, the beat is weakened by omitting the left hand.

 Actually, in Kayada 1 the only beat which is affected by this rule is the 10th beat, since the 9th beat is already weakened in accordance with Rule 2.
- 4. In the 2nd Line the approach to the khali line is also weakened, for Ti is weaker than the corresponding Dhi of the 4th Line.

Pench's

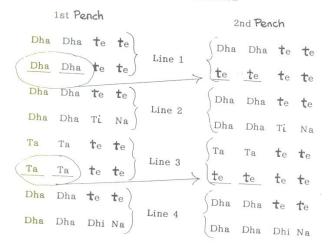
The form of Kayada 1 which we have so far discussed is only its basic, or Root, structure. We must now discuss a process of transformation which changes the original 16 beat cycle into a 64 beat cycle. There are three stages in this process, which follows strictly defined rules. The 3 expanded kayadas derived in this way are called Pench's.

In the first stage, the 16 beat cycle is changed to a 32 beat cycle, by repeating the 1st Line of the Root of the Kayada 2 times, the 3rd Line once, and inserting the 1st Line again before the 4th Line. We should stress that although the number of beats is doubled, (and later doubled again), the Pench is still regarded as consisting of 16 matras arranged in 4 lines, but there are now 2 (and later 4) beats per matra. Strictly, the bols of the 1st Pench should be regrouped into 16 matras when they are written out, but to make the derivation of Pench's clearer, this has not been done in the present discussion.



In the second stage, the cycle length remains the same, at 32 beats, but the second halves of the 1st and 3rd Lines of the 1st Pench are changed by substituting a phrase which is already contained in the Kayada. Usually, we replace the phrase in the 3rd matra of the 1st Pench with the phrase of the 2nd matra, and the 11th matra with the 10th matra. Thus in Kayada 1, Dha Dha and Ta Ta are both replaced by te te.

Second Transformation



In the third stage, the 32 beat cycle is changed to a 64 beat cycle according to the same rules which governed the 1st expansion, i.e., Line 1 of the 2nd Panch is repeated twice, Line 3 is repeated once, and Line 1 is reintroduced before Line 4. Each matra now contains 4 beats.

Third Transformation

3rd Pench

Lines of 2nd Pench						L	ines	of 3rd Pench
Line 1	Dha	Dha	$\boldsymbol{\dagger}_{\mathrm{e}}$	t e	$t_{\rm e}$	t e	t e	te Line 1
Line 1	Dha	Dha	t e	te	t e	t e	te	te Line 1
Line 1	Dha	Dha	t e	te	te	t e	$t_{\rm e}$	te
Line 2	Dha	Dha	te	t e	Dha	Dha	Τί	te Na Line 2
Line 3	Ta	Ta	t e	t e	t e	t e	t e	te Line 3
Line 1	Dha	Dha	t e	$\tau_{\rm e}$	tе	t e	Тe	te)
Line 4	Dha	Dha	$t_{\rm e}$	te	Dha	Dha	Dhi	te Line 4

This process of expanding the Root of the Kayada into the 1st, end and 3rd Pench's can be applied to all kayadas. You should note that the Pench's still conform to the structure of the kayada as discussed on Page Thus each Pench (a) still consists of two groups of 8 matras which have very similar structures, (b) the 1st, 5th and 13th matras begin with the strong Dha, and the 9th matra with the weak Ta, (c) the khali line is weakened, and (d) the approach to the khali line is also weakened.

Paltas

Expanding the Root of a Kayada into a series of Feach's according to the rules given above is only one way of developing the Root. A second method is to rearrange the order of some of the phrases in the Root of a Kayada or one of its Pench's. A structure derived in this way is called a Palta. Here is an example taken from Kayada 1 (note that now the bols of the Palta have been regrouped into 16 matras.)

Dhate te Dha Dhate te Dha Dha Dha Ti Na Ta te te Ta Ta te te Ta Dha Dha te te Dha Dha Dhi Na

1. LEARNING TO PLAY THE FIRST KAYADAS

Now that we have considered the theoretical background to tabla playing, you are ready to start learning to play. The method for learning to play the first three kayadas and simple theka in Tin Tal, is described in great detail. Once you have mastered this basic material, you will apply the same method to learning the other material.

The main piece of advice at this stage is - Don't rush. It is good that you should read through all the material and comments given, particularly the section on Principles of Practice on Pages 27 to 29, but when it comes to playing the material, go slowly. Learn to recite each exercise perfectly before you start trying to play it, and become reasonably competent at playing one exercise before you go on to the next one.

Kayada 1 - 16 beat cycle

The bols and chals of the Root of Kayada 1 are:

Dha	Dha	te	te
1A	1A	6	7
Dha	Dha	Ti	Na
1A	1A	4	1
Ta	Ta	te	te
1	1	6	7
Dha	Dha	Dhi	Na
1A	1A	4A	1

1. Tuning the Daina

The first practical step you ought to take is to tune the daina,

However, in order to do this, you need to be able
to play the chal for Siyahi Ta (Chal 1), because this is the stroke used in

tuning. Thus, before you can tune the daina you need to have practiced playing Sigahi Ta.

2. Learning the Chals.

The strokeryou need in order to play Kayada 1 are Chals 1, 4, 6, 7 and A, and the compound Chals 1A and 4A. You will have to turn back to executing the chals. to read the detailed descriptions of these chals. When you start learning a chal you will have to make the stroke very slowly, so that you get the idea of what the movement involves. Once you understand from the descriptions, the pictures, and from looking at your moving hands what to do, then start practising the stroke briskly, so that the fingers hit the drum-head quite hard. It is a good idea to learn such Ta first so that the daina can then be properly tuned.

In the early stages of practice, each chal should be played many times in succession, maybe 25-50 times at a go. You should pause after each stroke, and the hand should always be returned to its proper initial position before starting the next stroke. At first you will have to watch your hands closely to make sure that you are doing the correct thing. But soon you should concentrate more on listening to the sounds from the drums. You will notice when you do this, how much the sound varies from one stroke to the next in the series. This is due to slight variations in hitting the drum. The aim is always to get the clearest possible sound from each chal. Often you will find that you need to play a chal a number of times before the desired sound comes through at all. The compound Chals 1A and 4A should be practised after you have learned to play the component strokes separately.

You may start getting blisters, particularly on the side of the thumb where it hits the gazera in playing signhiTa. It is a good idea to cover the sore patch with sticking plaster until the skin develops a protective callous.

Once you are able to play each chal briskly, you should begin to speak the bol out loud each time you play it. This develops the association between speaking the bols and playing the chals, which is an important aspect of learning to play kayadas. It will require several days of practice before your chals start to make the right sounds.

3. Learning the Root of the Kayada.

The principle of the 3 stage learning process described here for the Root of Kayada 1 should be applied to learning all material.

In the 1st stage you learn to recite the bols of the material you

are going to learn. In the 2nd stage you add the hand movements, which are made simultaneously with recitation of the bols. In the 3rd stage you stop reciting the bols and make the movements alone.

First Stage - Verbal Learning

The first step is to learn to recite the Root. While you are reciting it, you should at the same time beat out the tala with the hands, showing the sam and tali beats with a clap, the khali beat with a silent wave, and counting the other beats with the 1st, 2nd and 3rd fingers of the right hand on the palm of the left hand. So, now read out loud and clap the Root at a slow rate of about one bol per second.

"Dha Dha te te Dha Dha Ti Na
Clap One Two Three Clap One Two Three

Ta Ta te te Dha Dha Dhi Na"

Wave One Two Three Clap One Two Three

It is important to keep the speed of recitation constant. The Root should be repeated with reduced amounts of looking at the page for prompting until you have learned it through repetition and can speak it without error.

Once you can recite the Root and clap the tala perfectly at the initial slow speed, you should start speeding up gradually, aiming for a recitation rate of about 4 bols per second. You will find that you make various types of error, due mainly to forgetting the sequence of bols, and to speaking the wrong bol even though you may know at the time that it is wrong. Some errors will show up as hesitations rather than as obvious mistakes. It will also be difficult to coordinate your speaking and clapping at first.

In this type of practice it is most important that you never exceed the speed at which you make more than occasional mistakes, certainly not more than one error per cycle. If you are making more mistakes than this you should practise a little slower. You will find with regular practice that your error free rate gets noticeably faster from day to day. This rule of not exceeding the error free rate during practice applies to speaking and playing all the exercises.

You should also practise varying the <u>speech level</u> of your recitation, from a firm and loud speed, through to a low whisper, then through to "sub-vocal speech" where you feel your vocal chords moving but no sound at all emerges, till finally you reach the point where you are just "thinking" the names of the bols in their correct sequence and

at even tempo. This reduction in speech level technique is useful in later stages of practice with the drums. You should keep clapping the tala while you practice reducing the speech level.

Second Stage - Introducing the Chals

Only when you have learned to recite the Root satisfactorily should you start trying to play it. You will already have had some practice in making the various chals for Kayada 1. To practice playing the Root, you should speak, the bols at a very slow rate, making the appropriate chal simultaneously with each bol. You should be able to attend mainly to watching what your hands are doing, and not have to think too much about whether you are reciting the Root correctly. You should always speak the bols and make the chals so that you hear the two sounds together.

At first, playing the Root will be a very slow business, but with a few hours persistence it will come more easily, as shown by the fact that you will be able to play faster without hesitations or other errors. It is very important that you constantly check that you are making the chals cleanly and correctly, and that you are getting a clear sound from each stroke. It is easy to fall into wrong motor habits at this stage, particularly without the eagle eye and fine ear of a teacher to put you right.

Once you can play the Root perfectly at the slow rate, you should start speeding up, but never exceed the speed at which you make more than occasional mistakes. A mistake includes not getting a clear sound from the drums. To practise the Root you should play it over and over again for about 30 minutes at a time, starting very slowly and gradually building up speed within a session.

Third Stage - Breaking Verbal Dependence

Up to this point you will probably find that if you stop speaking the bols of the Root while you are playing it, you very quickly start making mistakes. The breakdown in your performance shows that at this stage of practice the verbal responses mediate the hands' motor responses. It is as though learning to speak the Root creates a verbal framework of the Root in the brain. When you start to play it, each hand movement is attached independently to its corresponding verbal response. The verbal responses form the bones of this structure, if they are taken away, memory for the Root collapses.

Speaking the Root while playing it has its own disadvantage - it tends to take up too much attention, which ideally should be directed to the hand movements and to the sounds drawn from the drums. The third

stage of practice is progressively to reduce the speech level. So, playing the Root at medium speed, say 2 bols per, second, gradually reduce the level of vocalisation till you have reached the sub-vocal level. Then, stop saying or thinking the bols at all, and concentrate just on making the hand movements and listening to the drums. Suddenly, a well organised rhythmic pattern will stand out, and the exercise takes off from the realm of words into music. This is the first step in building up a system of aurally recognisable drum sounds and phrases, and connecting them with their appropriate movements.

4. Learning the Pench's and Tihai

It may take you a week or two of practice before you become competent at playing the Root at a tempo of 2 chals per second without error and getting a clear sound with every stroke. Once you can do this, you should start learning the 1st Pench. The method of learning is exactly the same as that already described for the Root. The bols and clapping of the 1st are:

''DhaDha	tete	DhaDha	t e t e
Clap	One	Two	Three
DhaDha	tete	DhaDha	TiNa
Clap	One	Two	Three
TaTa	tete	TaTa	t e t e
Wave	One	Two	Three
DhaDha	†e†e	DhaDha	DhiNa'' Three
Clap	One	Two	

First learn to recite the bols, clapping out the tala at the same time. Since the 1st Pench contains twice as many beats as the Root, the clapped beats fall on alternate bols. When you can recite the 1st Pench perfectly from memory you should start putting in the chals in the same way that you did for the Root. Exactly the same chals are used to play the 1st Pench as were used in the Root, the 1st Line of the Root is simply played 3 times, the 3rd Line is played twice, and the 1st Line played once again before the 4th Line. Once you have practised speaking and playing the 1st Pench, gradually reduce the speech level until you are playing the 1st Pench perfectly from memory at a speed of about 2 bols per second.

Exactly the same principle applies to learning the 2nd Pench , the bols and clapping for which are:

'DhaDha	tete	tete	t e t e
Clap	One	Two	Three
DhaDha	†e†e	DhaDha	Ti Na
Clap	One	Two	Three
TaTa	tete	tete	†e†e
Wave	One	Two	Three
DhaDha	tete	DhaDha	DhiNa"
Clap	One	Two	Three

Next the 3rd Pench. This contains twice as many beats as the 1st and 2nd Pench's; each matra contains 4 beats. The bols and clapping for the 3rd Pench are:

DhaDha t e t e	tetetete	DhaDha t e t e	tetetete
Clap	One	Two	Three
DhaDhatete	tetetete	DhaDhatete	DhaDhaTi Na
Clap	One	Two	Three
TaTatete	tetetete	TaTa t e t e	tetetete
Wave	One	Two	Three
DhaDha t e t e	tetetete	DhaDhatete	DhaDhaDhiNa"
Clap	One	Two	Three

Finally, the Tihai. The Tihai for Kayada 1 is derived from the 1st Pench and contains 32 beats.

''DhaDha	tete	DhaDha	tete
Clap	One	Two	Three
Dha <u>S</u>	S S	DhaDha	tete
Clap	One	Two	Three
DhaDha	†e t e	Dha <u>S</u>	$\frac{S}{T}$
Wave	One	Two	
DhaDha	tete	DhaDha	tete"
Clap	One	Two	Three

Each of the Pench's should be thoroughly mastered before you go on to learning the next one. It will probably take about a week for you to learn to play the Pench's and Tihai perfectly, playing at a tempo of about 2 beats per second.

5. Playing a Cycle of Pench's

A Cycle of Pench's consists of the Root, the 1st, 2nd and 3rd Pench's and finally the Tihai played in succession and mithout a broad one way of doing this is to play the Root, Pench's and Tihai all at the same tempo, that is at the same number of beats per second. Play each part 5 times, except the Tihai which should be played once. When you come to the end of the cycle start again, trying to go a little faster. As with learning the individual parts of the cycle, you should first practise reciting the cycle, then recitation plus playing, finally playing alone.

You will notice when you play a Cycle of Pench's in this way that you do not keep to a constant laya. If you are playing at constant tempo (i.e. at a constant number of beats per second), then each time you double the number of beats (as in going from the Root to the 1st Pench, and from the 2nd to the 3rd Pench) you halve the number of matras played per second. Your rate of clapping will be slowed by half each time, In order to keep the laya constant you would have to double the tempo whenever the number of beats is doubled. This is a second, and better way to play a Cycle of Pench's.

Practise first with recitation alone, speaking the Root at a rate of one bol per second, and clapping the tala as well. When you change to the 1st Pench, double the tempo, so that now you are speaking 2 bols per second. Your clapping will, of course, remain exactly the same. Again, when you go from the 2nd to the 3rd Pench, double the tempo once more, now to 4 bols per second. Again, the clapping remains constant. When you get to the Tihai you will have to halve the tempo relative to the 3rd Pench, since it contains 32 beats. You are now reciting the Cycle of Pench's at constant laya rather than at constant tempo. Once you can do this adequately for recitation, start putting in the chals, and finally cut out speaking the bols. When you start trying to play the Cycle of Pench's at constant laya, you should begin the Root at a very slow tempo, perhaps 1 beat every 2 seconds, otherwise you will find that the 3rd Pench is too fast to play clearly and without mistakes.

Principles of Practice

1. The Routine.

In order to make rapid progress in learning to play tabla, it is essential that you practise for at least $\frac{3}{4}$ of an hour every day. It is a good idea to do this in the morning if possible. If you are going to practise for more than $\frac{3}{4}$ of an hour, it is better to do the extra time later in the day, as dispersed practice is generally more beneficial than massed practice. It is always good to put in a few minutes of practice at odd moments during the day.

As you proceed through the exercises given, the amount of material that you have to practise slowly increases. Try to establish a routine for the first part of the daily practice session in which you play a series of Cycles of Pench's at constant laya, coming back to simple theka after each cycle. The kayadas should be played in the order in which they are given. Then, in the second part of the practice session, work on new material. You can, of course, practice recitation of material at any time during the day.

Once again, and for the last time, it should be emphasised that you must not try playing too fast. You must get a clear sound from every stroke. Only in this way is it possible to get the individual chals right, and this is absolutely essential for building up a good technique. Like all motor skills, tabla playing requires much repetition of simple material until the movements become really fluent. Sometimes practice can seem boring, but the trick is to get right inside the material you are

playing, listening to every note, and judging it in terms of the sound, cleanness and correct timing.

2. Motor Skill

A few words about motor skill may help the beginner. The hall-mark of skilled movement is that it is ballistic, or "thrown". In a movement of this type, the limb is set in motion by one set of muscles, which then relax while the limb continues to move under its own momentum. At a critical moment, an opposing set of muscles comes into action, which slows the limb down to a halt. In order to be ballistic a movement must be fast. A skilled tabla player literally throws his hands about when playing at speed, the muscles acting mainly to check the end of one action and to initiate the next. You should therefore try to make your hand movements as rapid as possible when actually executing a stroke onto the drum-head.

Another point to watch for is excess tension in the muscles of the arm. In the development of a motor skill, the movements made at first usually involve far more muscles than necessary. Such movements are uneconomical in terms of energy, and lead to rapid fatigue. In addition, some of these unnecessary muscles will be acting in mutual opposition, with the result that the joints which they operate become stiff and incapable of ballistic action. As the skill develops, muscle action becomes more refined, and superfluous muscle groups are quietened, until finally only those directly necessary for the movement remain, acting in the most efficient and coordinated way possible. If you feel that your hand is becoming stiff during practice, then grasp its wrist with the other hand and shake it about to loosen up the joints.

One of the main features of a motor skill is that movements which are originally made as separate descrete actions become grouped together. You will notice in the early stages that you have to think about each stroke before you make it. With practice, chals which occur in sequence become grouped together, and you begin to think in terms of sequences of actions rather than in terms of single actions. This is what is involved when you build up phrases of drum strokes such as tirakita and tirakita.

It is perhaps useful to make an analogy between the part of the brain which controls movements and a tape recorder with a library of tapes. The tapes contain the instructions which must be sent to the muscles for them, to bring about particular actions. The tape machine reads out these instructions and sends them off in the form of motor

commands to the muscles. Performing an action is a matter of selecting the right tape and playing it through the machine. The main factor which limits the speed with which you can do something is delay in selecting the right tape. In other words, delay is due to the time taken to decide what the next movement is to be. When you learn a new skill, such as playing the tabla, you start off with a set of blank tapes. The instructions necessary for each chal are "programmed" onto separate tapes, and when you play a sequence of chals, the brain has to select a series of separate tapes. When grouping starts to occur, the instructions for sequences of chals become programmed onto single tapes, and the sequence can now be read out as a unit. This reduces the amount of thinking required between separate actions, with the result that you can play faster.

You will probably find that after you have practised for some weeks that you <u>need</u> to think less and less about your movements when you play, and your mind starts to wander. This demonstrates the degree to which the motor system is capable of operating automatically and without attention. But you should always try and focus your attention on the drum sounds and listen to what you are doing, otherwise you will not derive the full benefit from your practice sessions.

TAL(A)

Rhythmic organisation in Indian music is based upon an underlying framework of a time-cycle which is repeated over and over again. This forms the basis for the highly controlled and fairly fixed relationship that exists between the structure, metre and patterns of a particular rhythm or TAL(A), and a particular melodic composition or RAG(A)

and it's melodic extemporisatory development.

The term TAL, perhaps best translated as time measure; is concieved as a cycle, and has two principal
aspects: (1) quantitative — meaning the duration of a cycle
measured in terms of time units Known as MATRAS
(similar to becits), and these are generally held to be in
three tempi or LAYA = slow or in VILAMBIT, medium
or in MADHYA, fast or in DRUT; (2) qualitative —
meaning the distribution of stresses or accents within the cycle.

This establishes a cyclic pottern consisting of a specific number of matras for each repetition of the time cycle, and a specific grouping arrangement of the matras into smaller sub-divisions called VIBHAGS (lit. trans.= "rooms"). The characteristic pattern of a particular tal is percieved by means of placements of stresses which occur on different vibrags. These stresses occur at different levels of intensity: - the principal stress at the beginning of the cycle is called SAM; secondary stresses within the cycle are called TALI; and at some point or points there is a negation of stress called KHALI, which always occurs at a point where a secondary stress may be experted but is consciously avoided. The Khali frequently occurs midway between two positive stresses, creating something of the effect of an 'up-beat against the 'down-beat of the sam and talis. When Keeping time the Khali is usually indicated by a wave of the hand, while the sam and talis are marked by claps.

TINTAL (TEENTAL)

THEKA

Dha Dhin Dhin Dha Dha Dhin Dha Dha Tin Ta Ta Dhin Dhin Dha Dha Ha Ha Big CLAP WAVE CLAP

This the most common and important tal of North Indian classical music (and others), and in essence is the major thythmic pulse used in music throughout the world:

The cyclic pattern is of 16 matras, which are divided into 4 equal parts (vibhags), and therefore each vibhag has 4 matras. It is presented in 2 similar phrases of 8 matras each and these 2 phrases compliment one another in the sense that the first phrase is composed of resonant bols, whereas the second phrase substitutes non-resonant bols in the first-half of the phrase. This distinction is of utnost importance and constitutes the major feature of Tintal, and it is for this reason that the time cycle is divided into 4-parts. The third ribbag is distinguished by having a non-resonant sound = empty or 'Khali'. The timing is counted by the ribbags, above the matras, hence 3 counts (claps) and one wave.

KAYADA (KAIDA) DIFFERENT VERSION Ghi, Ghi, te te Ghi Gli Ti Na Ki Ki be te Chi Glie Dhi Na HAS VARIATIONS RIGHT-HAND KAYADA Ta Ta te te, Ta Ta Ti Na Ta Ta te te Ta, Ta Dhi, Na,

TIHA	1=A1	RHYTH	MICP	IECE	14 44	nch s	AME	PHRA	SE 15	REPE	ATEI	×3	USUF RES			SHORT N PHR	
TIHAL	MADI	EOUT	OF P								_						
D	ha	DF	1a,	P	ha	D	ha,	+	te		te,		te		te,		
D)ha		-	-	-	- 1			Dha		Dha		Dha	7	Dha		
F	te,	t	e	It	e		Te,		Dha		_						
)ha,								te	-	1		te,		te		Dha
	REST!							ENS	110001	1 100				1st. 1	S BEAT	OF NEX	TCYCLE
1 20								1	N. '	N	+	+0	N-1	Nh.	T.	Mal	
P	DhaD	ha pr	1a D	nasl													
1	Dha,			-+		-		-	Dha]	Dha'	Dha	Dha	te	te	te	te	
	Dhal	ha t	et	e D	hal	ha	Ti	Na	Dha	_	_	_	_	_	_		
P	Dhal	tha I	sha D	hait	je;	te:	te	te	Dha	Dha	te	te	Dha	Dha	Ti	Na	Dha
				1					1								- 1
-																	
grouph man	1	1		-				-	-		1	l		T	1	1	
		1	,	+				1	-		1	1			1	Ţ	man of sense
			ı					1	-	1	1	1	-	T		1	
	1			1												1	1
		1						1	1	1		•	l				1
-																	
	-					1	1	1	-	1	1	1		1		1	-
						1		1	-			_		1	1		4
	1								1		**		1			×	1
					1		1						1	1	1	,	1
						-	-		-	_			-	-	+		7

PENCH (3)

PENCH (4)

Dha Dhatira kitatira kitatira kitatira kitatira kitatira kita Dha Dhatira kitatira kitatira kita Dha Dhatira kita Dha Dha Ti Na Ta Tatira kitatira kitatira

PENCH (5)

Dha Dha Dha Dha Dha ti ra ki ta Dha Dha ti ra ki ta Dha Dha Ti Na Ta Ta Ta Ta Ta ti ra ki ta Dha Dha ti ra ki ta Dha Dha Dhi Na

PENCH (6)

MILLIN

Dha	Ghe	te	te.	Dha	Ghe	ite.	te	-
	Ghe							
Ta	ke	ite.	te	Ta	Ke	ite	te	\dashv
Dha	Ghe	Na	Ghe	Dhi	Na	Ghe	Na	+

(1.) PENCH- EXPANSION OF THE KAYADA BY THE 1ST. LINEX 3 PRINCIPLE (3RD. LINE)

DhaGhete te DhaGhete te DhaGhete te DhaGhete te DhaGhete te DhaGhete te DhaGhe NaGhe Ti Nake Na Take te te DhaGhe Na Ghe Dhi NaGhe Na

(4320)
(2) PALTA - REARRANGEMENT OF THE MATERIAL (BOLS) OF 1ST. LINE OF ABOVE PENCH

PhaGhete te PhaGhete te PhaGheNa Ghe Ti Na Ke Na Ta Ke te te Ta Ke te te Ta Ke te te te Ta Ke Dha Ghete te DhaGhete te MaGheNa GheNi Na GheNa

(3) PENCH - 1st. LINE OF ABOVE X 3 PRINCIPLE, TO GIVE LARGE EXPANSION (+) PALTA

Tha Ghe te te Ma Ghe te te te Dha Gha Ma Ghe Na Ha Na Ha Ta ke te te Ta ke te te te Ta ke te te te Ta ke Ta ke Ta

(5.) PENCH - LARGE EXPANSION OF ABOVE (1ST. LINE X3, + KAYADA,) + SECOND HALF.

6) PALTA



PhaGhete te te DhaGhete te DhaGheNa Gho Ti Na Ke Na Ta Ke te te te Ta Ke te te Ta Ke Ta Ke Ta Ke te te PhaGhete te DhaGhe te te DhaGheNa GhoDhi Na Gho Na

(7) PENCH - EXPANDED VERSION OF ABOVE.

PhaGhete te the te MaGhete te DhaGhete te te te DhaGhete te the Na Ke Na Ta Ke te te te te te te te te DhaGhete te DhaGheNa GheNa Gh

(9) PENCH - EXPANDED VERSION OF ABOVE

(10) PALTA - REARRANGING WHERE THE PHRASES LIE ON THE 1ST. + 3RD. LINE

(1) PENCH (12) PALTA - ANOTHER ARRANGEMENT OF WHERE PHRASES OF (8) LIE ON 1ST. + 3RD, LINES

MaGhe te te MaGhe te te te te MaGhe Ti Nake Na MaGhe te te MaGhe Te te te te Ta ke te te te te MaGhe te te MaGhe te te te Ta ke te te te te MaGhe te te MaGhe te te MaGhe Na Gho Ni Na Ghè Na

KAYADA

Dha Ghe te te Dha Ghe te te
Dha Ghe ti ra ki ta Ti Na ke Na
Ta ke te te Ta ke te te
Dha Ghe ti ra ki ta Dhi Na Ghe Na

(1) PENCH (X3 expansion of 2nd. Line)

DhaGhete te DhaGhe te te DhaGhetirakita Ti Na ke Na DhaGhetirakita Ti Na ke Na DhaGhetirakita Ti Na ke Na Ta ke te te Ta ke te te Ta ketirakita Ti Na ke Na DhaGhetirakitaDhi Na Ghe Na DhaGhetirakitaDhi Na Ghe Na

(2) PALTA

Dha Ghe te te Dha Ghe tirakita Ti Na ke Na Dha Ghe tirakita
Ti Na ke Na Dha Ghe te te Dha Ghe tirakita Ti Na ke Na Ta ke tirakita
Ti Na ke te te Ta ke tirakita Ti Na ke Na Ta ke tirakita
Ti Na ke Na Dha Ghe te te Dha Ghe tirakita Dhi Na Ghe Na

(3.)PALTA

DhaGhete te DhaGhetirakita Ti Na ke Na DhaGhete te DhaGhetirakita Ti Na ke Na DhaGhetirakita Ti Na ke Na Ta ke te te DhaGhetirakita Dhi Na GheNa DhaGhetirakita Dhi Na GheNa

EXAMPLES OF PALTA MAKING FROM THE LARGE EXPANDED PENCH S (13) PENCH OF PALTA (12)

(14) PALTA REARRANGEMENT OF THE MATERIAL IN 1ST. LINE OF ABOVE PENCH.

(15) PALTA

(16) PALTA

MANY PALTAS CAN BE MADE (IMPROVISED) FROM ANY ONE LARGE PENCH

(17) PALTA - MORE tete AT EXPENSE OF Dha Gha
MaGhetete Maghete te Shabhete te te te te
Dha Ghe te te Dha Ghe te te Dha Ghe Ma Ghe Ti Nake Na
Take te te Take te te Take te te te te te
PhaGhete te pha Grete te phaGhe Na Gheithi Na Ghe Na
(18) PENCH (19) PALTA - SAME PHRASES AS ABOVE, BUT AGAIN CHANGING WHERE LIE ON 15T. 13
Ma Chete te Ma Chete te te te te Dha Chete te
ShaGhe te te DhaGhe te te DhaGhe Na Ghe Ti Na Ke Na
Take te take te te te te te take te te
DhaGhote te shaGho te te shaGho Na Gheishi MaGho Na
(20) PENCH (21) PALTA - AGAIN SHIFTING WHERE THE PHRASES LIE ON 1ST. + 3RD. LINES.
PhaGhate te te te te te MaGhate te MaGhate te
DraGho te te DraGhe te te DraGho NaGho Ti Nake Na
Take te te te te te Take te te Take te te
PhaGhate to PhaGhate to DhaGhaNaGhaNi Na CheNa
(23) PENCH (23) PALTA - HALVED - DOWN VERSION, BECAUSE HAS A FLOW ABOUT IT LIKE A KAYADA
The Ghe te te te te te
Dha Ghe Na Ghe Ti Na Ke Na
Ta ke te te te te te
Dra Ghe Na Ghe Dri Na Ghe Na
(24) PENCH

(28) PALTA-MORE tete

(26) PENCH

67) PALTA-MORE tete

(28) PENCH. AND NEXT PALTA/PENCH (NOT WRITTEN OUT) TAKES THE LETE'S
(29) PALTA - INTRODUCING SMALL GAPS, THRO'TO END OF 1ST. + 3RD. LINES
REPLACING THE LAST DIA GIVE.

Tha Ghe te te te te te te Dha - - - Tha Ghe te te Tha Ghe Na Ghe Ti Na ke Na Ta Ke te te te te te te Ta - - - Ta Ke te te Dha Ghe Na Gh

(31) PALTA

Ma Ghe te te te te te Dha - Dha Ghe te te te Dha Ghe te te Dha Ghe te te Dha Ghe Na Ghe Ti Na Ke Na Ta Ke te te te te te te Ta - Ta Ke te te te te Dha Ghe Na Ghe Na

(32) PENCH

(33)PALTA

DhaGhete te te te DhaGheNaGheTi Na ke Na DhaGhete te DhaGheNaGheTi Na ke Na Ta ke te te te Ta - - Ta ke te te te DhaGhete te DhaGhe La GheNi NaGhe Na

(34) PENCH

(35) PALTA

(36) PENCH

(34) PALTA

PhaGhate te Pha - DhaGhate te Dha - DhaGhate te
Tha Gha te te DhaGhate te DhaGhaNa Gha Ti Na Ke Na
Ta Ke te te Ta - Ta Ke te te Ta - Ta Ke te te
DhaGhate te DhaGhaNaGhe Dhi Na GhaNa
(38) PENCH

TIHAI

(4.)PALTA

DhaGhetirakita Ti Na ke Na DhaGhetirakita Ti Na ke Na DhaGhe te te DhaGhete, te DhaGhetirakita Ti Na ke Na Ta ke tirakita Ti Na ke Na DhaGhe te te DhaGhete te DhaGhetirakita Ti Na ke Na DhaGhete te te DhaGhetirakita Dhi Na Ghe Na

(5) PALTA

DhaGhe tirakita Ti Na ke Na DhaGhe to te DhaGhe tirakita
Ti Na ke Na DhaGhe te te DhaGhetirakita Ti Na ke Na
Ta ke tirakita Ti Na ke Na Ta ke te te Ta ke tirakita
Ti Na ke Na DhaGhe te te DhaGhetirakita Dhi Na Ghe Na

6)PALTA

DhaGhetirakita Ti Na Ke Na DhaGhetirakita Ti Na Ke Na Ta Ke te ta Ta Ke te te DhaGhetirakita Ti Na Ke Na DhaGhetirakita Ti Na Ke Na DhaGhetirakita Ti Na Ke Na Ta Ke te te Ta Ke te te DhaGhetirakita Dhi Na Ghe Na DhaGhetirakita Dhi Na Ghe Na

(7)PALTA

DhaGhetirakita Ti Na Ke Na Dha - - DhaGhete te DhaGhetirakita Ti Na Ke Na DhaGhetirakita Ti Na Ke Na Ta - - Ta Ke te te DhaGhetirakita Ti Na Ghe Na DhaGhetirakita Dhi Na Ghe Na DhaGhetirakita Dhi Na Ghe Na

(8) PALTA

DhaGhetirakita Dha - - - DhaGhetirakita Ti Na Ke Na | DhaGhete te DhaGhetirakita Ti Na Ke Na | Ta Ketirakita Ta Na Ke Na | DhaGhete te DhaGhetirakita Ti Na Ke Na | DhaGhete te DhaGhete te DhaGhete te DhaGhetirakita Dhi Na Ghe Na

(9) PALTA

Dha - - - Pha Ghetira kita Ti Na Ke Na Dha - - - - Dha Ghe te te Dha Ghetira Kita Ti Na Ke Na Ta - - - Ta Ke tirakita Ti Na Ke Na Ta - - - Dha Ghe te te Dha Ghetira kita Dhi Na Ghe Na

(10.) PALTA

Dha - - - Dha Ghetira kita Dha - - - Dha Ghetira kita Dha Ghetira kita Ti Na Ke Na Ta - - Ta Ketira kita Ta - - Ta Ketira kita Ta Dha Ghetira kita Dhi Na Ghen La

(11) PALTA

Dha - - - Dha Ghetira kita Dha - - Dha Ghetira kita Dha - - Dha Ghete te Dha Ghetira kita Ti Na Ke Na Ta - - - Ta ke tira kita Ta - Ta ke tira kita Ta - Dha Ghete te Dha Ghetira kita Dhi Na Ghe Na

KAYADA

Ghighi te te Ghighi te te Shighi te te Shighi tirakita Shighi Naghi Bhi Nagha Naghi Ghi tirakita Ti Na Ke Na Ki ki te te ki ki te te ki Ki te te Ki Ki tirakita Shighi Naghi Ghi Naghi Ghi Ghi Waghi Naghe Na

(1) PALTA

Ghi Ghi ha Ghi Na Ghe Na Ghi Ghi tirakita Ti Na ke Na Ki ki te te te te ki ki te te te ki ki tirakita Ghi Ghi Na Ghi Ghi Na Ghe Na Ghi Ghi tirakita Dhi Na Ghe Na

(2) PALTA

Shi Ghi Na Ghi Ghi Na Ghe Na Ghi Ghi to te Ki ki to takita Shi Ghi Na Ghi Ghi Na Ghe Na Ghi Ghi trakita Ti Na Ke Na Ki Ki te te te te te ki ki te te ki ki trakita Shi Ghi Na Ghi Ghi Na Ghe Na Ghi Ghi trakita Shi Na Ghe Na

(3) RALTA

GhiGhi to the GhiGhitirakta GhiGhi Na GheNa ShiGhitirakita Ti Na Ke Na Ki Ki to to to to to to to to ki Ki torakita GhiGhi Na Ghi Ghi Na Ghe Na GhiGhitirakita Shi Na Ghe Na GhiGhitirakita Shi Na Ghe Na

(4) PALTA

Shi Ghi Na Ghi Na Ghe Na Ghi Ghi tirakita Ti Na Ke Na Ki Ki Ki Ki te te te Ki Ki tirakita Ghi Ghi Na Ghe Na Ghi Ghi tirakita Ti Na Ke Na Ki Ki Ki tirakita Ghi Na Ghi Ghi Na Ghe Na Ghi Ghi tirakita Dhi Na Ghi tirakita Dhi tirakita

6) PALTA

Ghi Ghi Ghi Ghi Ghi te te Ghi Ghi te te Ghi Ghi tirakita Ghi Ghi Na Ghi Na Ghe Na Ghi Ghi tirakita Ti Na Ke Na Ki Ki Ki Ki Ki ki te te ki Ki te te Ki Ki tirakita Ghi Ghi Na Ghi Ghi Na Ghe Na Ghi Ghi tirakita Jhi Na Ghe Na

(6) PALTA

(7) PALTA

Shi Ghi Ghi Ghi Na Ghe Na Ghi Ghi tirakita Ti Na Ke Na Ki Ki Ki ki te te Ki te te Ki te te ki Kitirakita Ghi Ghi Na Ghe Na Ghi Ghi tirakita Ghi Ghi Na Ghe Na Ghi Ghi tirakita Thi Na Ke Na Ghi Ghi tirakita Thi Na Ghe Na Ghi tirakita Thi Na Ghi tirakita T

(8) PALTA

Ghi Ghi Ghi te te Ghi te te Bhi Ghi te te Ghi Ghi tirakita Shi Ghi Na Ghi Ghi Na Ghe Na Ghi Ghi tirakita Ti Na ke Na Ki Ki Ki te te ki te te ki Ki te te ki Ki tirakita Ghi Ghi Na Ghi Ghi Na Ghe Na Ghi Ghi tirakita Shi Na Ghe Na

(9) PALTA

Ghi Ghi te te Ghi te te Ghi Ghi Ghi tirakita Ghi Ghi Na Ghi Ghi Na Ghe Na Ghi Ghi tirakita Ti Na Ke Na Ki Ki te te Ki te te Ki Ki ki te te Ki Ki tirakita Ghi Ghi Na Ghi Ghi Na Ghe Na Shi Ghi tirakita Thi Na Ghe Na

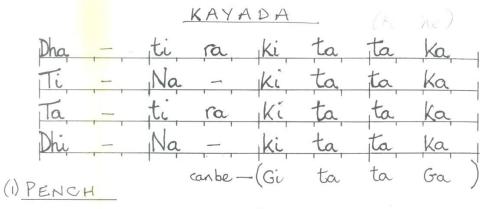
(10) PALTA

Shi te te Shi te te Shi te te Shi te te Shi Shi ha Shi Shi Na Shi Shi Na She Na Shi Shi te te Ki te te Ki te te Ki ki tirokita Shi Shi Na Shi Shi Na She Na Shi Shi ti akita Shi Na She Na

Ti HAI — covering 2 cycles.

(Ghi te te Ghi te te Ghi te te Ghi te te Ghi Ghi tirokita

Ti Na Ke Na Dha - Ghi Ghi tirokita Ti Na Ke Na Dha
Ghi Ghi tirokita Ti Na Ke Na Dha - - - - X3



Dha-ti ra ki ta ta ka Dha-ti ra ki ta ta ka Dha-ti ra ki ta ta ka Ti - Na-ki ta ta ka Ta-ti ra ki ta ta ka Ta-ti ra ki ta ta ka Dha-ti ra ki ta ta ka Dhi-Na-ki ta ta ka

(2) PENCH

Dha-tirajki ta ta ka ki ta ta ka ki ta ta ka Dha-tirajki ta ta ka Ti-Na-jki ta ta ka Ta-tirajki ta ta ka jki ta ta ka ki ta ta ka Dha-tirajki ta ta ka Dhi-Na-jki ta ta ka

(3) MAKE PENCH - 1st Line of above X3

Phatirakitatakakitatakakitatakakitatakakitatakakitataka Pratirakitatakakitatakakitatakaphatirakitataka Ti Na kitataka Ta tirakitatakakitatakakitatakakitatakakitatakakitataka

Pha tirakitataka kitataka kitataka Pha tiraki totaka Phi Na kitataka

(5) PENCH

Dha - ti ra ki tata ka ki ta ki ta ki ta ka

Dha - ti ra ki tata ka Ti - Na - ki ta ta ka

Ta - ti ra ki ta ta ka ki ta ki ta ki ta ta ka

Dha - ti ra ki ta ta ka hi - Na - ki ta ta ka

(6) MAKE PENCH - Ist Line of obove x3.

(7) PENCH

(8) PALTA

9 PALTA

(10) PALTA

Phatirakitatakaphatirakitatakaphatirakitataka Ti Nakitataka Tatirakitataka Tatirakita Tatirakita Tatirakita Tatirakita Dhatirakitataka Tatirakita Tatirakita Tatirakita Dhatirakitataka Thatirakitataka Phatirakitataka Phi Nakitataka

(II) PALTA

Dhatirakitataka Dhatirakitataka Dhatirakita Hatirakita Dhatirakitataka Dhatirakitataka Dhatirakita Tatirakita Tatirakita Tatirakita Tatirakitataka Tatirakita Tatirakita Tatirakita Dhatirakitataka Dhatirakitataka Dhatirakitataka Dhi Nakitataka

(12) PALTA

Phatirakita hatirakita Inatira kitataka hatirakita hatirakita
Dhatirakitataka hatirakitataka Matirakita takita Tatirakita
Tatirakita Tatirakitataka Tatirakita Tatirakita
Dhatirakitataka hatirakitataka Dhatirakitataka Di Nakitataka

(13) PALTA

Phatirakita Phatirakita Phatirakita Takitataka Phatirakita Phatirakitataka Phatirakitataka Phatirakitataka Ti Nakitataka Tatirakita Tatirakita Tatirakita Tatirakita Tatirakita Tatirakita Phatirakitataka Phatirakitataka Phatirakitataka Din Nakitataka The following illustrations show the patterns of 3 prominent tals:

Teental (Tintal) = 16 matras in 4 vibhags

Ektal = 12 matras in 6 vibhags

Thaptal = 10 matras in 4 vibhags

The metrical framework of each tal is represented by a basic Hythmic pattern of (usually) single bots for each matra in a fixed sequence, and such a basic sentence of words and strokes is called the THEKA of that tal.

Matros = Tap Palm with Finger Tip (pulse beats).

Teental Theka

| Dha Dhin Dhin Dha Dhin Dhin Dha Dha Tin Ta Ta Dhin Dhin Dha

(+) 2 3 4 (5) (0) (1) 12 (3) (3)

Thaptal Theka

Dhin Na Dhin Dhin Na Tin Na Dhin Dhin Na

(+) (2) (5) (6) 7 (3) 9 9 10

KAYADA 1 WITH DOUBLE tete's

Dha	Dha	te te	te te
Dha	Dha	Ti	Na
Ta,	Ta	te te	te te
Dha	Dha	Dhi	Na

PENCH (1)

Dha Dha te te te te Dha Dha Ti Na Ta Ta te te te te Ta Ta te te te te Dha Dha te te te te Dha Dha Dhi Na

PENCH (2)

Dha Dha te te

Dha Dha te te te te Dha Dha Ti Na

Ta Ta te te

Dha Dha Dha Te te

Dha Dha Dha Dha Dhi Na

PENCH (3)

AND SO ON FOR ALL THE MATERIAL THAT GOES WITH THIS KAYADA.

PALTA (20)

Dha Ghe tirakita Dha tirakita Dha tirakita Dha tirakita Dha tirakita Dha Ghe te te Dha Ghe tirakita Ti Na Ke Na Ta Ke tirakita Ta tirakita Ta tirakita Ta tirakita Dha Ghe te te Dha Ghe tirakita Dhi Na Ghe Na

PALTA (21)

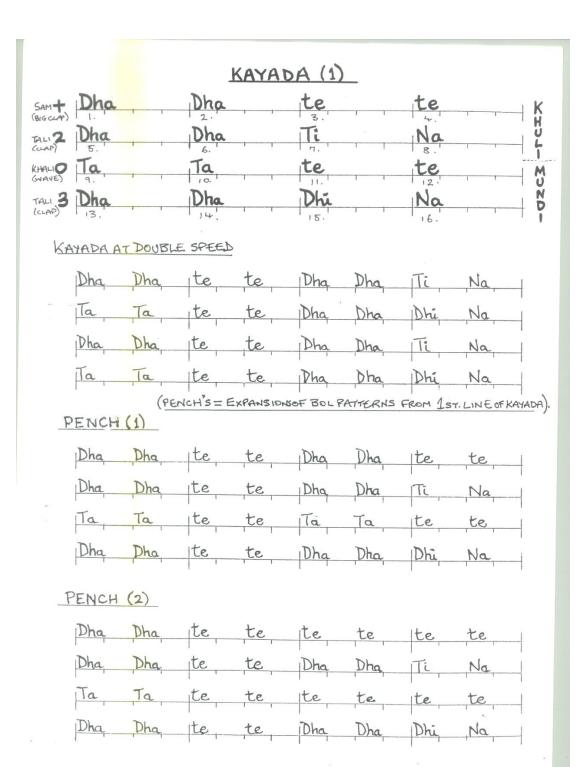
Dha Ghe te te Dha Ghetirakita Ti Na Ke Na Dha - Dha Ghe tirakita Ti Na Ke Na Ta Ke Na Ta Ke Na Ta Ke ta Ta Ke tirakita Ti Na Ke Na Ta - Ta Ke tirakita Dhi Na Ghe Na Dha - Dha Ghetira kita Dhi Na Ghe Na

PALTA (22)

Ma Ghe te te Bha Ghe tirakita Ti Na Ke Na Dha - Ti Na Ke Na Dha - Ti Na Ke Na Dha - Ti Na Ke Na Ta - Ti Na Ke Na Ta - Ti Na Ke Na Ta - Ti Na Ke Na Dha - Sha Ghe te te Dha Ghe tirakita Dhi Na Ghe Na

PALTA (23)

Dha Ghete te Dha Ghetirakita Ti Na ke Na Ti Na Ghe Na



	\$ 23	_
	73 73	_
	Dha	_
	Z F	_
	1= 1a	_
	19 19	
	19 19	
,	1g g	
	\$ \$2	a plan
	\$ \$ \$	
t a special control of the special control of	Dha	_
BI THE STATE OF TH	₹ F=	
de Cyanaca esta esta esta esta esta esta esta est	上 墓	_
The Francisco	Dha Dha Ti Na Dha Dha Dha	
A TO OPERATE A	Dha	
CERTIFICATION OF THE PROPERTY	N S S	

KAY	37	ha	0	0	3	5 8	5 6	2 8	3	3	3	C.,	9	Ja	9	हें	[1]	7.5
YADA	Dha	6	to	Dha	t	Dha	Tho	7	Tha	Dha	7	Z	Dha	Dha	15	15	DA	Dha
19	te	te	Dha	te	Dha	to to	Dha	D :	Dha	7	Z	Dha	Dha	17	Dha	200	Dha	Z
SOME P	te	Dha	Dha	Dha	Et	Dha	d	Dho	De	Z	Dha	Dhia	<u>_</u> ,	Dha	Dha	Z	Z	Dha
PALTAS	Dha	Dha	Dha	Dha	Dha	5	E	et	وبا	Dha	Dra	Dha	Dha	Dha	Dha	Dha	Dha	Dha
FROM	Dha	Dha	Dha	Dha	Dha	Dha	Dha	87	Z	Dha	Dha	Dha	Dha	Dha	Dha	Dha	Dha	Dha
	=1	[:]	7	7	1=	=.1	1,	15	8	te	87	8	te	8	8	8	Et	87
REARRANGING THE	No	Za	Za	Za	2	Za	Z	<u>ک</u>	8+	Et	6	8	Et	8	8t	8	8	8
0	al	19	te	6	T	2	da	19	Ta	P	al	7	Z	Z	Z	pl	7	7
HE DO	Ta	te	8	5	te	7	al a	al.	وا	al	5	Z	2	2	15	57	2	و
00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	te	8	ام	to	d	8	DI	d	DI	7	Za	pt	2	17	2	21	N	Z
-	te	اج ا	- F	P	ST	ام	8	2	ام	Na	al	ام	7	P	Ta	Z	Z	P
w	Dha	Dha	Dha	Dha												Dha	Dha	Dho
	Dha							8								-		Dho
,	Dhi	Dh.	Dhi	Dhe	Dhi			Dh.						7 6	8	8		8
•	Z	Za	- Z	Z	Z						8		+ 8	5	8	te	+ 6	8
+																		
							-											

PENCH (3)

Dha Dha te te te te te Dha Dha te te te te te e

Dha Dha te te te te te Dha Dha te te Dha Dha Ti Na

Ta Ta te te te te te te Ta Ta te te te te te

Dha Dha te te te te te te Dha Dha te te Dha Dha Dhi Na

PENCH (4).

PENCH (5).

Dha Dha Dha Dha Dha Te te.

Dha Dha te te Dha Dha Ti Na

Ta Ta Ta Ta te te

Dha Dha te te Dha Dha Dhi Na

PENCH (6)

P	ALTA	(PALT)	AS = VARI	ATIONS - R	EARRANGE TARTING W	MENTS OF	BOLS OF P	ENCH1).
	Dha	Dha	te	te	Dha	te	te	Dha
								Na
	Ta,	Ta	te,	te	Ta	te	te	Ta
	Dha	Dha	Ite.	te	Dha	Dha	Dhi	Na
F	ALTA	(2) (PARE	ENT PALTA F	OR OTHERS	STARTING	WITH 1 Dh	la)	
	Dha	te	te	Dha	Dha	te	te	Dha
	1		1		1.0			Na
	Ta	te	ite	Ta	Ta	te	te	Ta
	Dha	Dha	te	te	Dha	Dha	Dha	Na
	1							
1	PALTA	(3) (PARE	INT PALTA	FOR OTHERS	STARTING	WITH 3 DI	na's)	
								te
	Dha	Dha	Dha	te	te	Dha	Dha	te Na
	Dha	Dha	Dha	te	te	Dha	Dha	
	Dha te Ta	Dha Dha Ta	Dha	te te te	Dha	Dha Dha Ta	Dha Ti Ta	Na
Ó	Dha te Ta	Dha Dha Ta Dha	Dha te Ta	te te te	Dha te Dha	Dha Dha Ta	Dha Ti Ta Dhi	Na
Ó	Dha te Ta te	Dha Ta Dha Ca (4) (PAR	Dha te Ta te	te te te	Dha te Dha	Dha Dha Ta Dha WITH 4 D	Dha Ta Dhi pha's).	Na te
Ó	Dha te Ta te PALTA	Dha Dha Ta Dha Ca (4) (PAR)	Dha te Ta te Dha	te te te FOR OTHERS	Dha te Dha starting	Dha Dha Dha WITH 4 D te	Dha Ti Ta Dhi pha's).	Na
Ó	Dha te Ta te PALTA Dha Dha	Dha Ta Dha A (4) (PAR Dha Dha	Dha te Ta te Dha te	te te te for others Dha te	Dha te Dha starting	Dha Dha Dha WITH 4 D te Dha	Dha Ti Ta Dhi ha's).	Na te Na

KAYADA (2) + Dha Dha ti ra ki ta Ki 2 Dha Dha Ti Na 5 Dha Dha Dhi Na RAHADA AT DOUBLE SPEED Dha Dha ti ra ki ta Dha Dha Ti Na Ta Ta ti ra ki ta Dha Dha Dhi Na

PENCH (1)

Dha Dha ti ra Ki ta Dha Dha Ti Na

Ta Ta ti ra Ki ta Dha Dha Ti Na

Dha Dha ti ra Ki ta Ta Ta ti ra Ki ta

Dha Dha ti ra Ki ta Dha Dha Dha Dha Dha

Dha Dha ti ra Ki ta Dha Dha Ti Na

Ta Ta ti ra Ki ta Dha Dha Dhi Na

PENCH (3)

PALTA (1) (PARENT PALTA FOR OTHERS STARTING WITH 2 Dha's) Dha Dha ti ra ki ta Dha ti ra ki ta Dha Dha Dha ti ra ki ta Dha Dha Ti Na Ta Ta ti ra ki ta Ta ti ra ki ta Ta Dha Dha ti ra Ki ta Dha Dha Dhi Na PALTA (2) (PARENT PALTA) Dha ti ra Ki ta Dha Dha ti ra Ki ta Dha Dha Dha ti ra ki ta Dha Dha Ti Na Ta ti ra ki ta Ta Ta ti ra ki ta Ta Dha Dha ti ra ki ta Dha Dha Dhi Na

PALTA (3) (PARENT PALTA)

Dha Dha ti ra ki ta Dha Dha ti ra Ki ta Dha ti ra ki ta Dha Dha Ti Na Ta Ta ti ra ki ta Ta Ta ti ra Ki ta Dha ti ra ki ta Dha Dha Dhi Na

PALTA (4) (PARENT PALTA)

Dha Dha Dha ti ra ki ta ti ra ki ta Dha Dha ti ra ki ta Dha Dha Ti Na Ta Ta Ta ti ra ki ta ti ra ki ta Dha Dha ti ra ki ta Dha Dha Dhi Na

PALTA (24)

Dha Ghete te Dha Ghetirakita Ti Na Ke Na Ghe Na

PALTA (25)

Dha Ghe te te Dha Ghe tirakita Ti Na - Dha Ti Na Dha Ghe tirakita Ti Na Ma Dha Ghe te te Dha Ghe tirakita Ti Na Ke Na Ta Ke te te Ta Ketirakita Ti Na - Ta Ti Na Ta Ke tirakita Ti Na Dha Ghe te te Dha Ghe tirakita Dhi Na Ghe Na

PALTA (26)

Dha Ghe te te Dha Ghetirakita Ti Na - Ta Ghe Na Dha Ghe
Ti Na Ke Na Dha Ghete te Dha Ghetirakita Ti Na Ke Na
Ta Ke te te Ta Ketirakita Ti Na - Ta Ke Na Ta Ke
Dhi Na Ghe Na Dha Ghete te Bha Ghetirakita Dhi Na Ghe Na

PALTA (27)

The Ghete te MaGhetirakita Ti Na - Dha Ti Na - Dha Ti Na Ke Na Dha Ghete te Dha Ghetirakita Ti Na Ke Na Ta Ke te te Ta Ke tirakita Ti Na - Ta Ti Na - Ta Ti Na - Ta Thi Na Ghe Na Dha Ghe te te Dha Ghetirakita Dhi Na Ghe Na Dha Ghe ta Che Dha Ghetirakita Dhi Na Ghe Na Dha Ghe

TIHAI -90VER-9

(12.) PALTA

Dha Ghe te te Dha Ghe te te Dha Ghe tirakita Ti Na Ke Na Ta - Ta Ke tirakita Ta - Ta Ke tirakita Ta - - -Dha Ghe te te Dha Ghe te te Dha Ghe tirakita Ta - - -

(3.) PALTA

Dha - Dha Ghetirakita Dha - - - Dha Ghetirakita Dha - - Dha Ghetirakita Dha - - Dha Ghetirakita Ti Na Ke Na Ta - Ta Ketirakita Ta - - Ta Ketirakita Ta - Dha Ghete te Dha Ghete te Dha Ghete te Dha Ghete te Dha Ghetirakita Dhi Na Ghe Na

(14) PALTA

Dha - Dha Ghotira kita Dha - - - Dha - - - Dha - - - Dha - - - Dha Ghe te te Dha Ghetira kita Ti Na ke Na Ta - Ta - - Ta - - Ta - - Ta - - Dha Ghe te te Dha Ghe te te Dha Ghetira kita Dhi Na Ghe Na

(15) PALTA

DhaGhetirakita Dha - - - - Dha - - Dha - - Dha - - Dha Ghetirakita Ti Na ke Na Ta ke tirakita Ta - - - - Ta - Ta - Ta - - Ta - - Ta - Ta - Ta - Ta - Ta - - Ta - Ta

(16) PALTA

Dha Ghetirakita Dha - - Dha - - Dha - - Dha - - Dha Ghete te Dha Ghete te Dha Ghetirakita Ti Na Ke Na Ta Ketirakita Ta - - Dha Ghe te te Dha Ghe te te Dha Ghetirakita Dhi Na Ghe Na

(17.) PALTA

(18) PALTA

The Ghetira Kita Dha - - tirakita Dha - tirakita Dha - Dha Ghete te Dha Ghete te Dha Ghetira Kita Ti Na Ke Na Ta Ketirakita Ta - - tirakita Ta - tirakita Ta - Dha Ghete te Dha Ghete te Dha Ghetirakita Dhi Na Ghe Na

(19.) PALTA

Pha Ghetira kita Pha - tirakita Pha - tirakita Pha - tirakita Pha Ghete te pha Ghetirakita Ti Na Ke Na Ta Ke tirakita Ta - tirakita Ta - tirakita Pha Ghete te pha Ghetirakita Pha Ghe Na Pha Ghetirakita Phi Na Ghe Na

TABLA - BEGINNER EXERCISE & VARIATIONS THEME (KAYADA) Ghi, Ghi, te te Ghi Ghi te te tetekite Ki Ki te, te Ghi, Ghi te te tetekite VARIATION (1) Ghis to te Ghi Ghi, Ghi tete Kite ki the te ki Gui, Ghi, tete kite, Ghi, Ghi, Ghi, te te Ghi tete kite hi, hi Li te te, Chi, tete Kite