

1995

# The art of North Indian tabla drumming : adaptations to the African-American drumset tradition

Gregory Michael Diethrich  
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**THE ART OF NORTH INDIAN TABLA DRUMMING:  
ADAPTATIONS TO THE AFRICAN-AMERICAN DRUMSET TRADITION**

**A Thesis  
presented to  
the Faculty of the School of Music  
San Jose State University**

**In Partial Fulfillment  
of the Requirements for the Degree  
Master of Arts**

**by  
Gregory Michael Diethrich**

**May 1995**

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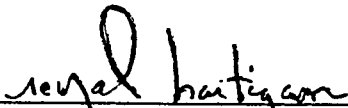
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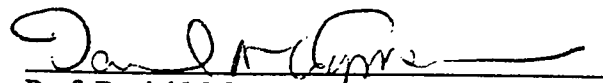
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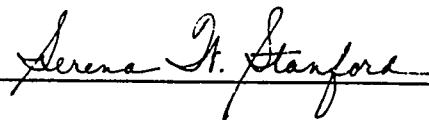
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## ABSTRACT

### THE ART OF NORTH INDIAN TABLA DRUMMING: ADAPTATIONS TO THE AFRICAN-AMERICAN DRUMSET TRADITION

by Gregory M. Diethrich

This thesis examines possibilities for adapting compositions and techniques of North Indian *tabla* drumming to the drumset in African-American jazz and related traditions. Background is provided on the history and development of the *tabla*, as well as on North Indian rhythmic theory and compositional types in the *tabla* repertoire. A brief history of the drumset is also presented. Original methodologies are then defined for adapting *tabla* compositions to the drumset, each with different parameters, allowing various approaches to be used for adapting a single composition in different ways. Advantages and disadvantages, as well as possibilities in musical contexts, are considered for each adaptive framework. Individual compositions are then analyzed and adapted to the drumset using the different approaches.



## ACKNOWLEDGMENTS

I wish to thank Sudhir Kumar Verma, my tabla guru and guardian during my stay in India. This work would not have been possible without the generous gift of his knowledge. I also wish to thank my drumset guru, royal hartigan, not only for his musical knowledge, but for influencing me with his perspective on life. As a musician, educator, ethnomusicologist, and especially as a human being, royal's integrity will always be an inspiration to me. This work is dedicated to my grandparents, William and Marianne Dale, whose lives have been marked by their kindness, generosity, and love.

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PLATE 1

The Tabla

Bayan

Dahina

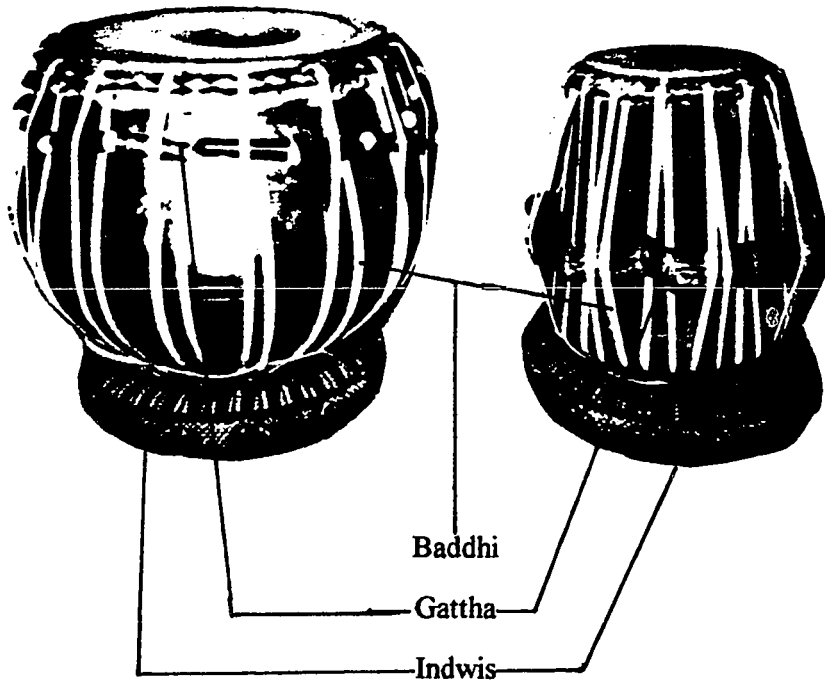


PLATE 2

The *Tabla Puri* (Head)

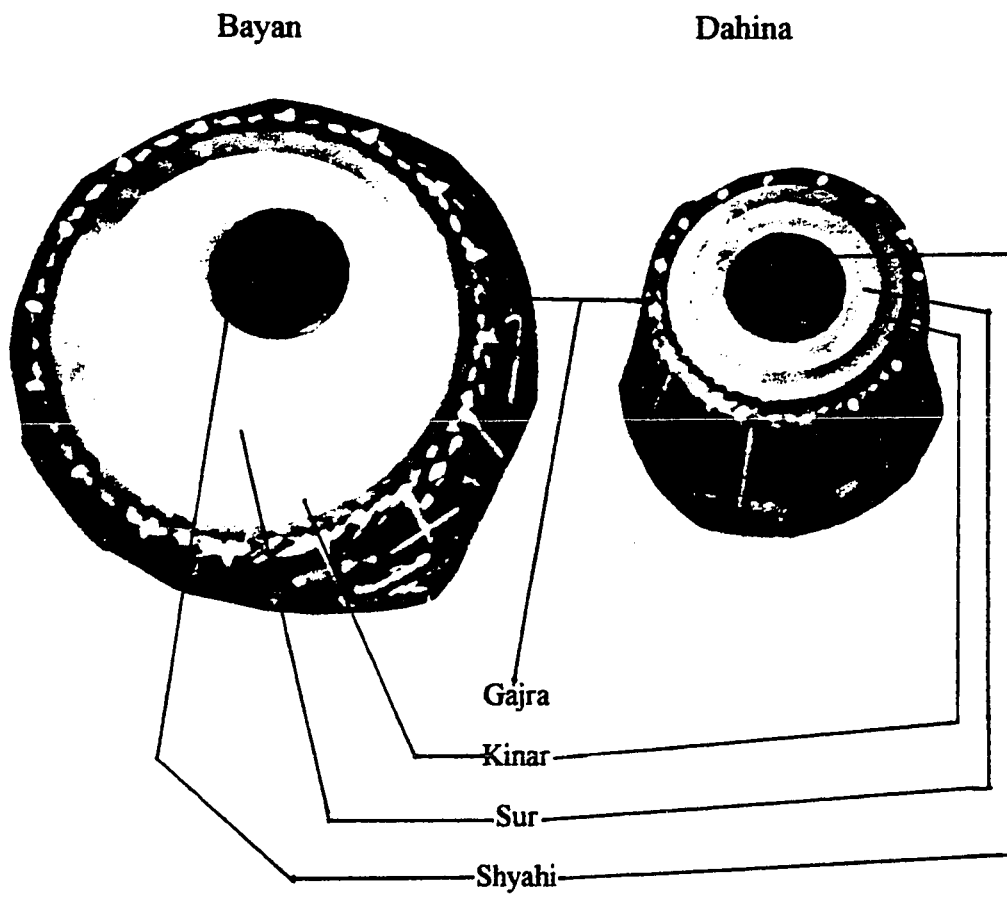
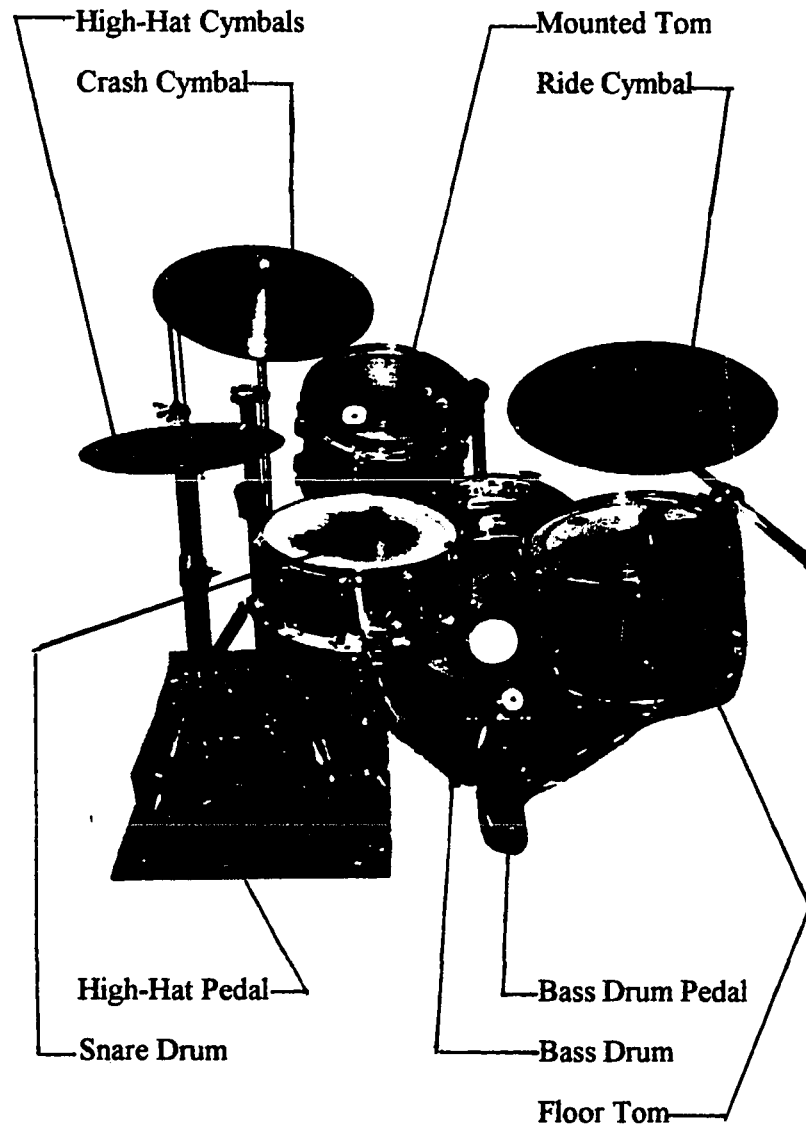


PLATE 3  
The Drumset





**CHAPTER 1**  
**INTRODUCTION**  
Nature of the Study

The following is a study in cross-cultural musical exchange between the tradition of *tabla* drumming in North India, and the drumset in the African-American jazz and related traditions. My interest in this research began in the fall of 1990, when I decided to seek out new inspiration in drumming, and left for India to study *tabla*. I soon made contact with a well-known professor of *tabla* who agreed to take me on as his student, and I moved into his family's home in Lucknow, Uttar Pradesh, in northeast India. Sudhir Kumar Verma became my guru for the next four months, a time which hardly amounts to an instant in a true Indian guru-disciple relationship, but nevertheless, was enough to change my view of the study of music forever. Our lessons averaged two hours daily, and my practice at least eight hours, seven days a week.

Before leaving for India, I had already felt an interest in trying to adapt the complex rhythms of *tabla* drumming to the drumset, the instrument in which I was already long invested. I knew that *tabla* technique was very difficult, and, not sure if I would be able to sufficiently control this technique, primarily intended to use what I learned on the drumset. As I progressed on the *tabla*, however, and began thinking of possibilities for drumset adaptation, I began to see increasing difficulty in portraying these compositions on the drums in a convincing manner. The more complex this transference seemed, the more interesting the topic became.

This study is the result of several years of consideration and experimentation using aspects of *tabla* on the drumset. It does not mark an end to my involvement in the subject, but only defines the beginning. The process will hopefully develop and improve

throughout my life. My greatest concern in doing this research is to retain the full integrity of the tabla tradition in its transition to the drumset. An Indian tabla player should easily be able to hear the more literal drumset adaptations as deriving from specific tabla compositions.

This research is being conducted in the interests of musical diversity, which often necessitates cross-cultural interaction, and it is being guided by my deepest respect for the music of India. In attempting a synthesis with another musical tradition, both knowledge of the tradition and respect for the culture and the people must be at the forefront. There have been too many instances where an aspect of a non-Western musical tradition has been used in a Western context for "exotic" effect, without the borrower truly understanding the music or the culture being borrowed from. My feelings on this issue have been brought forth most clearly by Hafez Modirzadeh in his 1992 dissertation, Chromodality and the Cross-Cultural Exchange of Musical Structure (3):

As the next century of cross-cultural awareness approaches, such newly defined concepts will be needed in order to distinguish among the rising number of dubious world music perspectives which often arise from highly inconsistent performance practices. This is why, now more than ever, musical cultures need to be defined accurately, not just for the sake of scholars, but for composers and performers as well (since their perceptions influence those of society at large). In order for true cross-cultural performance to be carried out with integrity, the superficialities of exoticism must be overcome. And in order for universals to be considered with reasonable measure, "west and the rest" perceptions must become attitudes of the past. The following approach in no way depends upon a "melting pot" perspective toward world music; neither does it encourage trivial renderings of musical tradition.... discipline, devotion, and humility are the prioritized requirements for a successful effort in cross-cultural musical performance; any lesser characteristic could not fulfill the responsibility of artistic integrity.

Jazz and Hindustani music are ideal candidates for this type of cross-cultural experimentation. Besides my personal inclination towards the African-American musical

tradition, I feel it is inherently open to and productive with new influences. Even at the beginning, jazz was spawned in a multi-cultural context, that of nineteenth century New Orleans, and throughout the twentieth century, jazz has made the best use of surrounding musical styles, for instance European art music, Latin-American musical genres, and rock. Jazz thrives on this type of interaction, constantly reinventing itself without ever losing sight of its roots. As Modirzadeh writes, "[a]s we discover our inherent commonalities and vulnerabilities, rather than dissolve into one another, we build up a tolerance for uniqueness and originality" (119).

Both jazz and Indian music have a strong basis not only in improvisation, but in *collective* improvisation, the musicians supporting and re-directing each other, feeding off one another's ideas, dodging and coming together in musical-cognitive interplay, bringing the music to heights beyond the capacity of a single person. Both place great emphasis on rhythm--in jazz, deriving from the multi-layered, polyrhythmic, polytemporal nature of West African drumming, and in Indian music, based on intricate patterns woven within complex time-cycles. Finally, both are *oral* traditions, creating an environment for the highly developed psycho-cognitive sense of hearing and feeling music necessary for sophisticated improvisation.

#### Significance of the Study

The purpose of this research is to expand the repertoire of cross-cultural musical approaches on the drumset by developing methods of adapting tabla compositions and North Indian rhythmic elements to the drumset, in jazz and related genres, in a manner that maintains the integrity of both traditions. Several different methodological perspectives will be used, considering advantages and disadvantages of each. As a result, original approaches to performance of the drumset will have developed, both through specific patterns and general concepts for playing. It is an attempt to move the

instrument forward, adding to its existing rhythmic styles, and contributing to the body of information available to drumset players interested in new directions.

Even aside from the specific drumset patterns presented in this work, the third chapter on Hindustani rhythmic theory is in itself of value to drumset players, teachers, and students of world music, explaining this highly developed, non-Western approach to rhythm and time. Whereas Western music (as well as Western culture) conceives time in a linear fashion, from a distinct beginning to a distinct ending, Indian music (and Indian culture) conceives time as cyclical, continuing endlessly, although it can be divided in many ways. Many drumset players, especially in popular music genres but including many jazz players, are intimidated by "unusual" pulse groupings (represented in Western terms as time signatures), encompassing practically anything that does not total two, three, or four pulses. Changing one's pre-disposed mindset from a linear to a cyclical conception of time is an excellent way to begin to feel other meters in a sophisticated manner, where performance and especially improvisation and phrasing within these meters becomes comfortable. Of course, changing one's mindset is only the first step--practical playing experience must follow. This study provides numerous drumset patterns in various meters that can be used by drummers to gain fluency and reveal new directions in these time cycles, and all may be used in practical performance situations.

Besides helping to familiarize drummers with various time cycles, there are several other tabla-inspired concepts presented in this work which will expand drummers' techniques. One is the use of rhythmic theme-and-variation in drumset accompanying patterns and in solos. Expansion and development of a theme is certainly not uncommon to Western music, practiced extensively by Western composers as well as by master jazz improvisers. In Indian classical music, improvised expansion on rhythmic and melodic themes can last for hours, and in tabla playing, certain compositional types such as *kayda*

and *rela* are created for this type of development. Some master drumset players have used theme-and-variation in their solo playing, however, by utilizing aspects of tabla performance practice, this concept can be further developed, expanding the drummer's ability to perform well-conceived solos using thematic material.

Another concept that will benefit all musicians, and especially drummers, is the development of a sense for intricate rhythmic cadences, at the ends of musical phrases or as a part of larger rhythmic compositions, using Hindustani rhythmic devices known as *tihais*. Drumset players in every style are expected to express the form of a song by playing "fills" at the end of melodic phrases, and often by accenting the beginning of important structural points in the song form. *Tihais* open up a wealth of possibility for sophisticated cadential fills.

In addition, within musical phrases themselves, drummers can develop the music by giving shape to phrases through structuring the sonorities that they choose on the drums, in a manner similar to the use of *khula-bandh* phrasing in tabla playing.

Above all, this study hopes to foster interest in Indian music and in the tabla, and encourages new ideas on the subject of Indian rhythmic concepts being brought to the drumset and Western ensemble playing. The research presented here defines my personal attempt at using tabla drumming ideas in my drumset playing, and has no pretense of being exhaustive. In fact, I find that the more these ideas are developed, the more new ideas arise. As such, this work represents a beginning, whose subject and relevance is fertile ground for future research.

## Previous Research

### Tabla

Robert S. Gottlieb, The Major Traditions of North Indian Tabla Drumming.

Gottlieb's main focus is the transcription and analysis of six tabla solos by six tabla masters, one from each primary *gharana* tradition in North India. After providing brief background into the history, nomenclature, rhythmic structure, and stylistic repertoires of the tabla, he focuses on the analyses, based on transcriptions of recordings that he made in India in 1971. Gottlieb worked with one acknowledged master in each of the six major stylistic practices of tabla: Inam Ali Khan of the Delhi gharana, Keramatulla Khan of the Farukhabad gharana, Wazid Hussain Khan of the Lucknow gharana, Kishan Maharaj of the Benares gharana, Habibuddin Khan of the Ajrada gharana, and Alla Rakha Khan of the Punjab gharana. Each artist was recorded performing a solo in the same time-cycle, *teentaal*, the most common classical form, allowing stylistic comparisons between the different traditions to be drawn from the analyses.

James Kippen, The Tabla of Lucknow.

Kippen's 1988 book researches the development of one of the primary tabla *gharana* traditions in the city of Lucknow. Kippen first provides background on this important musical center, including a musical and socio-political history of the city, as well as a description of its unique cultural climate. He continues by describing the nature and function of music in present-day Lucknow. Exploring sociological elements surrounding music and musicians is as important to Kippen's research as defining the musical style itself. He is especially concerned with social attitudes towards and between musicians-- that is, the social organization of the music within itself and related to the larger society. Chapter 3 discusses social relationships between musicians, and chapter 5 considers effects

on music due to perceptions and attitudes both of the public towards tabla players, and of tabla players towards the public.

Chapters 4, 6, and 7 deal with the development of the Lucknow style of tabla playing as well as specific technical features and compositions of the style. In his notations, Kippen wishes to define exactly what techniques, timbres, and fingerings are being used, and to this end, develops a system of punctuation placed over the syllables of the compositions. Though accurate, this system is very cumbersome to read, utilizing a variety of open and filled triangles, squares, and circles, wedges in every direction, numbers, and other notational devices, used to give as much information on the playing techniques as possible. Other than this top-heavy notational system, Kippen's descriptions and analyses of the Lucknow repertoire are very insightful.

**Frances Shepherd, Tabla and the Benares Gharana.**

Shepherd's 1976 dissertation examines the tabla tradition centered in the city of Benares. After discussing the topic of gharanas in general, Shepherd provides a detailed history of the Benares gharana. She follows by explaining general characteristics of tabla playing, such as the training of a tabla player and *taal* theory, which apply to all styles of tabla, but are based on her experiences studying under Sharda Sahai, a master in the Benares gharana of tabla. Shepherd's study focuses mainly on the tabla solo repertoire in the Benares gharana, unlike Stewart, who emphasizes tabla accompaniment in her work. Shepherd continues by analyzing the various compositional types of the tabla solo repertoire. All compositions were taught to her by Sharda Sahai (a direct descendant of Ram Sahai, founder of the Benares gharana) and represent the Benares style. Her appendices include a description of the tabla making process, a genealogy of the Benares

Gharana, an interesting review of different notational systems used for tabla, and an analysis of two tabla solo performances.

Rebecca Stewart, The Tabla in Perspective.

Unlike Shepherd's and Kippen's research into specific styles of tabla, Stewart's 1974 dissertation looks at the general development of tabla in North India. She is especially concerned with tracing the origins of the instrument, finding evidence to settle the many contradictory claims made by musicians of different ethnic or regional backgrounds about the origins of the tabla. She comes to the conclusion that the tabla developed from several older drums of both Muslim and Hindu origin--especially the *dholak*, the *naqqara*, and the *pakhavaj*. Stewart analyzes each stroke used on the tabla, tracing each to a related stroke on one of the parent drums. In this way, she explains the development of certain strokes and groupings of strokes in each of the two largest divisions of tabla stylistic practice, the *Delhi* and *Purab bajs* (styles), plus the independent *Punjab baj*. She continues by discussing all of the major compositional types in the tabla repertoire, and then showing how each is utilized in the role of accompaniment. This includes many interesting transcriptions of the like I have not seen in any other research--the solo instrumentalist or vocalist is notated in staff notation, and the tabla accompaniment, written in syllabic notation, is placed beneath the staff. Using this method, one can see exactly how the tabla artist accompanies the soloist during any given passage of music. Stewart's research is primarily concerned with the accompanying role of tabla, and does not describe the solo tradition in depth.



### Drumset

Theodore Dennis Brown, A History and Analysis of Jazz Drumming to 1942.

Although many articles and theses have been written describing particular drumset artists or particular styles of playing, this is the only work I have found which attempts a comprehensive study of the formative periods of the drumset, and the players responsible for developing early drumset styles. Brown places considerable emphasis on defining and describing the influences which directly lead to the development of the drumset, namely, the drumming of West Africa, and the military and dance drumming traditions of nineteenth century America. Brown then deals systematically with each of the major periods of pre-jazz and jazz drumming, revealing techniques used by many of the major drummers of each period. He begins with ragtime and vaudeville drummers, continues through the 1920s New Orleans and Chicago styles and the 1930s swing era, ending his study at the birth of bebop drumming in the early 1940s. Brown's study is very informative for drummers and music historians alike, especially in its numerous notated examples. It should be noted that his research and conclusions about drummer's techniques in each musical period are based entirely on available recorded material, and he does not discuss the possibility that stylistic practices were in use that went beyond what occurred in the recording studio.

### Cross-Cultural Music Performance

royal hartigan, Blood Drum Spirit: Drum Languages of West Africa, African-America, Native America, Central Java, and South India.

This dissertation (Wesleyan University 1986) is the first and only scholarly study I have seen adapting world drumming traditions to the drumset. This monumental work (4 volumes, 1670 pages) has set a high standard for future research in cross-cultural music. Although many non-research oriented books have been published on the adaptation of

various Latin American traditions to the drumset, hartigan's work represents the first effort to consider the drumming of West Africa, Native America, Central Java, or South India. Although other drummers have studied West African drumming and have used the rhythms on the drumset, no in-depth study to my knowledge has preceded or followed this work. The sensitivity and respect hartigan has for each of these cultures is reflected in the humanistic approach of his research. Rather than relying on the traditional researcher/informant division of ethnomusicological research methodology, he emphasizes the close personal relationships maintained with the master musicians involved in the study, and his direct involvement in the musics of these cultures.

In the studies concerning African-American drumset adaptations of West African drumming (comprising approximately two-thirds of the total work) hartigan gives further credibility to his research by not only relying on his own adaptive methods, but involving African-American master drummer Edward Blackwell, and focusing on the interactions between the West African and African-American master musicians. Blood Drum Spirit not only provides hundreds of drumset adaptations, but gives the reader in-depth perspective into the cultures and the traditional musics being considered.

Although my interest in my own research began before I was aware of royal hartigan's work, and the musical traditions represented in hartigan's study do not parallel that of my own research (except for the basis in the African-American drumset tradition), his methods have proved infinitely valuable to the completion of the present study. In terms of portraying a musical culture with knowledge and respect, royal hartigan represents to me an ideal to which I will always aspire.

Hafez Modirzadeh, Chromodality and the Cross-Cultural Exchange of Musical Structure.

Modirzadeh's unique and ingenious dissertation (Wesleyan University 1992) combines ethnomusicological research with original poetry, musical composition, and abstract musical philosophy. The intent of the project is to consider universals in musical behavior, developing a theory that structure, although expressed conditionally within specific cultural contexts, is an inherent universal in all musical practice. Using ethnomusicological research tools and creative jazz composition, concepts are devised to organize and interchange various parameters of musical structure, thereby developing new cross-cultural performance contexts (v). Book One combines metaphorical poetry, telling the story of a symbolic land and its people's quest for unity, with the scores for eighteen original compositions of cross-cultural music, many using original or non-Western notational systems, arranged for a jazz ensemble consisting of woodwinds, guitar, bass, and drums (a tape with performances of the compositions accompanies the work). Book Two explains the metaphors of the poetry, describes the techniques utilized in the compositions, and further explains the general theory of *chromodality*. Modirzadeh goes on to show how physical structures in the universe, such as the DNA molecule, atomic theory, optics and the solar system, can inspire extended theories of musical structure.

Jerry Leake, Drum Set Adaptations of North Indian Tabla.

The one published work on the adaptation of tabla rhythms to the drumset is a handbook that takes a surface-level view of the subject. Leake uses one consistent method for adapting tabla rhythms to the drumset, similar to method 1 of my own adaptive frameworks, assigning each stroke of the tabla to one or two corresponding timbres on the drumset. Although stating that, "[e]stablishing a specific sound for each stroke is not the overall objective, as this will hamper the player's sense of improvisation"

(5), this is the approach Leake uses in all of his drumset examples. He continues by explaining that his "objective is to accurately classify tabla sounds while introducing flexibility for further interpretation and variation by the player" (5). However, Leake only introduces "flexibility for further interpretation" as a concept, and does not provide examples or ideas of other ways to interpret tabla compositions, leaving this to the individual--as he states, "What ever comes to you!" (15, grammatical error in original). However, since Leake does not provide much background on tabla rhythmic theory or discuss how tabla compositions could be adapted to different musical contexts, it would be difficult for an individual without tabla experience to create informed interpretations.

## CHAPTER 2

### HISTORY AND BACKGROUND OF THE TABLA

#### Overview

The subcontinent of India has one of the most ancient, advanced, and aesthetically developed musical cultures in the world. Evidence of the early developments of India's musical systems dates back by conservative estimates over four thousand years, the subtleties and complexities of the arts developing over millennia. The subcontinent has been invaded and divided numerous times in its history, mixing many cultural influences, most notably those of Hindu and Muslim peoples. In present-day India, the dynamics of culture, including music and the arts, are complex, since over a dozen well-established regional cultures flourish, each with their own distinct literature and music, in addition to numerous small isolated villages with their own distinct sub-cultures (Ranade 2).

Musically, however, to look at the general picture, there are two main musical traditions in India which operate side by side. There are many shared influences and characteristics between these two systems, but many differences as well, particularly in their rhythmic systems. These are the *Karnatak* musical tradition of South India, and the *Hindustani* tradition of North India.

Drumming has always been an integral and indispensable part of Indian classical music. Rhythm and meter have been vital to Indian musical practice since ancient times, present in the complex chants used as an oral medium to propagate the *Vedas* (the epic texts which constitute the basis of Hindu philosophy) over the centuries. These chants had highly developed rhythmic characteristics, and Indian music ever since has placed great emphasis on sophisticated rhythm, relating it spiritually to the gods and to nature. Indian musicologist Nikhil Ghosh writes:

"Rhythm is a proportion of time inherent in all aspects of nature. In music, it is rhythm which not only beautifies the melody but is also the vital force in melodic imagination. Thus it is said, 'rhythm is the pulsation of the melody- nay, -universe.' It is time charged with energy which sweeps across endless space, transmitting all things--smallest to the biggest--into rhythmic vibrations." ("Science" 27)

The drum in Indian music not only provides rhythmic support, but outlines the structural form, and builds the music through tension and release. In European art music until contemporary concert music practice, jazz until the late 1950s/early 1960s, and continually in popular genres, cadential motion has been achieved through the harmonic movement of tonic/dominant relationships. Indian music, however, is a modal tradition, without vertical harmonic organization. How then does this music provide the necessary tension and release dynamic? The cadential aspects of Indian music, improvised by the performers, are provided through melodic development, tempo, density, dynamics, and most importantly, rhythmic development, reaching an apex through cadential rhythmic patterns supported by the drum.

Although many types of drums and other percussion instruments exist in India, both Karnatak and Hindustani music each use one drum in particular for both classical and folk genres. For Karnatak music, this is the *mridangam*, and in Hindustani music, it is the *tabla*. Be it classical or folk genres, vocal or instrumental, the *tabla* is always present in North Indian music as an accompanying and often as a solo instrument.

The *tabla* is relatively young compared to most Indian instruments. Its precise history is still argued among Indian scholars and musicians, many of whom claim the *tabla* to have originated in their own cultural area. Objectively, however, evidence shows that the *tabla* probably developed slowly from several types of older drums such as the *naqqara*, the *dholak*, and the *pakhavaj* (Stewart 16).

Until recent times, six specific styles or "schools" of tabla playing existed independently in India. These schools are known as *gharanas* or *baj* (Verma p.c. Dec 1990). Each one can trace its history back to its founder, and is propagated generation by generation through the originating family's sons and closest disciples. Thus, historically, a great tabla player could only come out of a family of tabla masters, for the knowledge was coveted and kept secret except to members of the *gharana*. This was possible because India has an oral musical tradition.

The first tabla *gharana* is generally agreed to have begun in Delhi, the capital and cultural hub of India, with the others developing as offshoots of the Delhi style. The exception to this is the Punjabi *gharana*, in extreme northwest India, which insists its tradition developed independently of the Delhi style. The other *gharanas* are the Ajrada *gharana*, most closely linked to the Delhi, the Benares *gharana*, the Lucknow *gharana*, and the Farukhabad *gharana*. These styles are all interrelated--the Farukhabad style developed out of the Lucknow style, which itself originated from the Delhi *gharana*. Lucknow and Benares had some different influences as well, and developed into unique tabla centers, representing a general style known as *Purab* (Shepherd 7).

Except for skeletal sketches, music in India was probably never notated in detail until the arrival of the British (Renade 36). In the traditional guru-disciple relationship of learning music, the emphasis is put on memorization, and as little as possible is written down. This, along with the fact that Hindi musical terms written in English are spelled phonetically, is responsible for numerous variations in the spelling of musical terminology. In this study, consistency will be maintained in the spelling of such terms; however, the reader is advised that the same words may have different spellings in other readings.

### Introduction to the Tabla

The tabla is the primary drum used in Hindustani music. As the drum is an essential part of all Indian music, the tabla is present in almost every performance of North Indian music, be it classical, folk, popular, or film music. In fact, the influence of the tabla throughout Central Asia is greater than any other drum in any genre--it is a popular instrument in Afghanistan, Pakistan and Bangladesh (which of course were formerly parts of India), and can be found as far west as Iran. The term *tabla* actually refers to a pair of drums (see plate). The smaller drum by itself is called the *tabla*, or often *dahina*, meaning right-hand drum, and the larger drum is known as the *dagga*, or *bayam*, meaning left-hand drum (refer to Plate 1).

The pair stand about a foot high, and are usually played sitting cross-legged on the floor. Much emphasis in the learning process of tabla is placed on posture and correct sitting position. It is felt this is necessary to be able to correctly produce the sounds from the drums, and maintain stamina and poise over a long period of time. Different gharanas and individual players will position and angle the drum in different ways, most conducive to their playing. Sitting posture will sometimes vary; for example, some *Purab* style players will play kneeling, sitting on their heels, because the height gives them added leverage needed for the power that is characteristic of the style.

#### Physical Characteristics

The *dahina* is made from a thick wood shell averaging about five to seven inches in diameter. Sheesham and rosewood are considered the best woods for tabla shells, although a variety of woods are used. There is no one exact way to build tabla, because they are made by individual craftsmen whose techniques may differ from one to the next. Tabla craftsmen are generally Muslims of low caste, because the building of the drums involves the handling of dead animal skin (goat skin) which is against the religion of



Hindus, and socially beneath many Muslims. The *bayan* in the past was made out of clay, but today it is usually made of nickel alloy because the clay drums proved to be too fragile. The heads (*puri*) of both drums are similar in construction, and quite complex. The primary sound produced on the *dahina* is not the open tone of simply striking the drum, as with most other drums in the world, but the sound of the drum's primary overtones. This is achieved by resting the ring finger of the right hand on the drum while striking the drum with the index finger, allowing clear overtones to emerge. This is only possible, however, because of the special construction of the tabla head. The *puri* (refer to Plate 2) is a double layer of skin with a large circle cut from the top layer, leaving only a band of the top skin around the outer edge of the bottom skin. A circular patch (called the *shyahi*) is then formed on the center of the head. This patch is made from a resin comprised of rice flour, iron filings, and various other elements which vary from maker to maker. Both the double-head and the *shyahi* are important in eliminating certain overtones from the drum, and it would not be possible to obtain the sounds of the tabla without them.

The characteristic sound of the *dahina* is a clear ringing tone, which is tuned to an exact pitch. The *dahina* is tuned by means of wooden blocks (*gattha*) which are placed under the leather straps (*baddhi*) laced all around the head of the drum. The blocks are struck with a hammer to either tighten or loosen the tension of the straps and the head. Fine tuning is achieved by tapping with the hammer around the edge of the head, resulting in a very clear and accurate pitch. During a performance, one often sees the tabla player fine tuning the drum (and the instrumentalist fine tuning as well), especially during the first fifteen minutes or so of a performance.

The *dagga* is tuned in the same fashion, though often does not have tuning blocks. The *dagga* is not tuned to an exact pitch, but rather, a general range that sounds good in

combination with the tabla. Different pitches are produced on the *dagga* through the varied application of pressure from the wrist while playing the drum. These pitches, however, are not as distinct as the clear pitch of the *dahina*.

The pitch of the *dahina* is determined by the tonal center of the *raag* being played by the melodic instrument or voice. In Indian *sargam* (solfege syllables), this is the note *Sa*, the same note emphasized by the drone instrument, the *tambura*. The tonal range of the tabla depends on the size of the drum, but an average five inch diameter tabla has an approximate range of C to the E a third above, one octave above middle C. C and C# are the most common tonal centers.

#### Origins and Development of the Tabla

The origins and history of the tabla continue to be a controversial subject--there are many claims which contradict each other, as both the Hindus and the Muslims claim their cultures to be the inventors of the tabla. Gottlieb states it is most likely that the word itself is derived from the Arabic word *tabl*, a generic term for "drum", although there are similar terms in other Middle Eastern languages (1). From an objective standpoint, it seems fairly clear that the features of the tabla in its present form can be traced historically to both ancient Muslim and Hindu drums. Pairs of drums bearing resemblance to the modern tabla have long traditions in both India and the Middle East. The Hindus played tabla-shaped drums long before the arrival of the Muslims, and the Muslims long before coming to India (Gottlieb 1).

There are several specific drum-types that have influenced the modern tabla. Probably the two most important are the Muslim *naqqara*, and the Hindu *pakhavaj*. Another drum-type which most closely resembles the tabla is the *dukkar*, a pair of drums which is played tied around the waist. The playing technique also most closely resembles the tabla, using

the hands and the fingers. This drum may also be a fusion of Hindu and Muslim influences (Gottlieb 3).

The term *tabl* was probably brought to India early in the sixteenth century, when India was invaded by the Moguls, who were Ottoman Turks. The Moguls brought pairs of kettledrums in various sizes called *naqqara*, which were used in battle marches and state processions (Gottlieb 2). Many important tabla performers today believe the tabla evolved from the naqqara. In its traditional function on the battlefield, the naqqara is played with sticks; however, as Gottlieb states, "it is conceivable that, having become divorced from its former military function, the nakkara developed into a more refined instrument suitable for the more intimate musical surroundings of court life, so that ultimately the use of sticks was abandoned in favor of using the hands and fingers" (2).

It seems quite certain, however, that pre-Mogul Hindu drums influenced the development of the tabla as well. The *shyahi*, for example, is one Hindu contribution, tracing back to an ancient tradition in India of applying paste patches to drumheads. Many Hindu tabla artists believe the tabla to be directly descended from the *pakhavaj*, which preceded the tabla as the traditional drum of North Indian music. The pakhavaj was used primarily in accompanying the *khyal* style of singing when it began to replace the older *dhrupad* style in the early eighteenth century (Gottlieb 3). The *dahina* of the tabla looks much like a small pakhavaj, and both use paste patches. The influence of the pakhavaj on tabla can also be seen through the repertoire of tabla compositions, much of which is derived from the older drum. In the courts of the *nawabs* (viceroys) of the eighteenth century, both pakhavaj and tabla players were used to accompany the *kathak* dancers of the court, a style which will be discussed later. These compositions are still present in the repertoire today, handed down through the generations in the *gharanas* ("schools" or styles) that perform these styles.

The influence of these older drums on the repertoire of tabla compositions varies from gharana to gharana. The initial gharana style, centered in Delhi, shows primarily the influence of the dholak, and secondly, of the naqqara. The Lucknow style, the first main offshoot of the Delhi style, added greater techniques of the naqqara plus a large influence of the pakhavaj. The Benares gharana, owing much to the Lucknow style, used a greater proportion of classical pakhavaj techniques and compositions. The Punjab style, developing independently from the others, relied heavily on the dholak and pakhavaj traditions in the region (Stewart 16).

The most logical conclusion from all of the contradictory opinions and scattered empirical evidence is, as suggested before, that the tabla developed over a long period of time under a variety of influences. The instrument underwent several major and minor changes, especially during the period between 1750 and 1850, and Stewart believes that in its present state, the tabla is probably not much more than 100 years old (7).

In past history, the tabla has had little respect or standing as a musical instrument (Stewart 359). Before its techniques were refined, it was used solely as a folk instrument, and not in art music. Tabla was also the instrument for accompanying *tawa'ifs*, the dancing girl/courtesans of the Muslim courts, and was therefore often associated with debauchery, poor manners, and immorality (Kippen 24). It was not until its association with the great courts of the Muslim *nawabs* of Faizabad and Lucknow, in the later part of the eighteenth and early part of the nineteenth century, that the still-developing tabla established itself as a medium for classical art-music. The imperial capital of Delhi had long since shown the signs of the gradual collapse of Mogul rule in India, and Lucknow and Faizabad, beginning with Nawab Shuja-ud-daula (1754-1775), became the new artistic centers (Stewart 359). The rulers of these cities became well known as lavish patrons of the arts in their courts, drawing many of the greatest musicians in India. The great tabla

artists of this time were paid handsomely, and had little responsibility but to pursue their art.

It was not until the early twentieth century, however, that the tabla developed its own techniques and compositions enough to establish a distinct solo repertoire. The instrument had previously been used solely for accompanying purposes, and indeed, this remains the primary function of the drum today. The tabla had been used occasionally for solo performance earlier, primarily in the *Purab baj* (i.e., the Lucknow, Benares, and Farukhabad gharanas), which was the first to recognize the potential of the tabla as a classical instrument. The repertoire for this solo style of tabla developed out of the naqqara and dholak traditions of these regions. The Delhi *baj* was slower to accept tabla as a classical and solo instrument, considering it at first only acceptable for accompanying *tawa'ifs* (Stewart 359). To this day, the traditional *Purab* style is considered more spectacular in solo performance, while the Delhi style more refined for accompaniment.

In only about a century, the tabla became the supreme rhythmic instrument of North India. Tabla players began to be offered much greater opportunities to play in different musical settings. For example, the tabla became the support for the equally rapidly changing sitar and sarod traditions, as well as the for the *thumri* and *khyal* vocal styles. Meanwhile, players such as Natthu Khan and Ahmadjan Thirakwa were developing the solo tabla repertoire to new heights, incorporating more highly evolved aesthetic and technical characteristics.

In the past, the general public of India held a negative attitude towards music and musicians, which did not change until the end of the nineteenth century. Much of this had to do with religious constraint. For most Muslim sects, music was not considered a path to self-realization for someone devoted to it, as in Hindu belief, but only as base entertainment. Hindus on the other hand, were turned away by the image of the *tawa'ifs*

and the lifestyle implied by being a musician. Tabla players and *sarangi* players (a bowed string instrument) were the most subject to these attitudes, for these were the instruments that always accompanied the *kathak* dance of the court *tawa'ifs*. This prejudice towards tabla players still exists to some extent today.

Another important factor in the low public standing of music was that, until the twentieth century, it was not very accessible to the general public. Classical music, much like in the time of European monarchies, was usually performed in courts for very select audiences. Listeners, then and now, were expected to be quite educated in music, to be able to follow the pattern of the *taal* (rhythmic cycle), and to respond appropriately to the performer throughout the performance. The public, however, was generally uneducated about music, a problem especially compounded by the fact that musical knowledge was considered an extremely valuable commodity, closely guarded within the *gharana* system. Musical information was not freely shared with anyone except a performer's patron and closest disciples.

Two figures in the late nineteenth and early twentieth centuries were largely responsible for reviving music in the public eye. These were Vishnu Digamber Paluskar (1872-1931), and Vishnu Narayan Bhatkhande (1860-1936) (Kippen 24). Bhatkhande, in particular, was especially important for organizing a series of All India Music Conferences, which brought music to the public, as well as establishing public music schools in Baroda, Bombay, Gwalior, Nagpur, and Lucknow. The Lucknow school is now called the Bhatkhande College of Hindustani Music, and it became the most respected music school in India. My guru, Sudhir Kumar Verma, is now principal of this college. Later, many factors existed which popularized music, including radio (All India Radio to this day still broadcasts live music performance), phonograph records, films, television, and public

concerts. In modern India, music enjoys great respect. Even kathak dance, previously associated only with courtesans, has become a high art form.

### The Gharana System

As the tabla became established as major classical instrument of Hindustani music, *gharanas* of tabla playing were likewise established. A *gharana* defines a certain style of tabla playing, founded by a great tabla master who establishes the style and propagates it through his sons and disciples. These styles are also sometimes known as *baj*. Each *gharana* has different techniques and influences which define its characteristic style, and traditionally, the techniques and compositions of a *gharana* were coveted secrets.

#### Origins

It is generally agreed that the first *gharana* was established in Delhi. All of the major tabla *gharanas* center geographically around two areas--Delhi and the Lucknow/Benares region of the state of Uttar Pradesh. Therefore, in the most general view, tabla styles can be divided broadly into two categories--the *Pachvan* ("western") *baj*, centering around Delhi, and the *Purab* ("eastern") *baj*, centering around Lucknow and Benares. From this main nucleus of primary *gharanas*, there are two important offshoots, the Ajrada *gharana*, closely related to the Delhi style, and the Farukhabad *gharana*, closely related to the Lucknow style. A third major tabla *baj*, the Punjab *gharana*, claims to be derived independently of the *Pachvan* and *Purab* styles. The state of Punjab, comprised almost entirely of members of the Sikh religion, is not only religiously, but politically, socially, and culturally removed from the rest of India.

Thus, there are six main *gharanas* of tabla in India: Delhi, Ajrada (comprising the *Pachvan baj*), Lucknow, Benares, Farukhabad (comprising the *Purab baj*), and Punjab. The *Purab baj* has produced several sub-branches in cities such as Moradabad, Indore,

Varanasi, and Bareilly, but these first six are considered in all of the literature to be the most important. The founders of these gharanas are shown in example 2.1. The birthdates are approximate because the lives of these men are not well documented, with most of the information handed down orally, and many dates are found between sources to be contradictory.

Example 2.1 *Gharana founders* (Stewart 16)

<u>Delhi</u> -Sidhar Khan Dhari (born ca. 1710-1720)	<u>Ajrada</u> -Kallu & Miru Khan (ca. 1810-1820)
<u>Lucknow</u> -Bakshu Khan Dhari (ca. 1775-1785)	<u>Farukhabad</u> -Haji Vilayat Khan (ca. 1810-1815)
<u>Benares</u> -Ram Sahai (ca. 1810-1815)	<u>Punjab</u> -Faqr Baksh (ca. 1850-1860)

Each of these gharanas, except the Punjab, traces its direct relationship back to the Delhi gharana. Even today, prominent tabla artists are able to trace their roots back to Sidhar Khan of Delhi. There is very little information written about this man, but Shepherd states that it is likely he was a court musician in Delhi at the time of Bahadur Shah (reigned 1717-1719) and/or Mohammad Shah (reigned 1719-1748) (5). All of the gharana founders trace directly to Sidhar Khan. Bakshu Khan of Lucknow was the grandson of Sidhar Khan, and Vilayat Khan of Farukhabad was a prominent disciple of Bakshu Khan. Ram Sahai of Benares was the greatest disciple of Modhu Khan, Bakshu Khan's brother and possible co-founder of the Lucknow gharana. Kallu and Miru Khan of Ajrada were disciples of another of Sidhar Khan's grandsons (Shepherd 7). Each of these



men took what was given them and had enough insight and discipline of their own to establish a new style.

### Characteristics of Gharanas

Each gharana style can be identified by the characteristic manner in which certain types of compositions are developed and elaborated. All have their own characteristic patterns and finger techniques as well, using different types of sounds and combinations of sounds that can be produced on the drum. This is largely due to varying degrees of pakhavaj or naqqara influence.

The Delhi gharana contains no influence from the pakhavaj, a drum that is played very strongly and is used mostly to accompany dancers. The Delhi style, as a result, produces a softer sound than any of the other gharanas. The fingers remain relatively close to the drumhead, not using the strength of the arm to strike the drum (Gottlieb 70). The *kinar*, which is the outer edge of the drumhead producing brighter overtones, is often utilized, and the style is sometimes referred to as *kinar style*. Maximum importance has been placed on the delicate artistry of the compositions, for example intelligently and beautifully woven expansions on theme-and-variation compositions known as *kaydas*. The Delhi *baj* is especially noted for its great variety of *kaydas*, which have set the standard in this form and have influenced every other gharana. Other forms for which Delhi is renown are its great *morha*, *peshkar*, *rela*, *tukra*, *gat*, and *chakradar* (Gottlieb 73). Characteristics of these compositional types will be discussed presently. All Delhi compositions are rendered with reserved speed and volume—the style is delicate, and rather than strength, subtle finger dexterity is emphasized.

The Ajrada gharana is a close offshoot of the Delhi style, and all the same basic techniques and sonorities are used. It did, however, add certain unique characteristics

which separate it from its parent style. *Ajrada kaydas* are often very complex, making frequent use of polyrhythms, especially three against two (Shepherd 8). In addition, its patterns are often played in a flexible meter, something done to a much lesser extent in the other styles except for Punjab (Gottlieb 81). The rhythmic patterns fluctuate slightly from their strict divisions in time, creating a grandiose, rubato feel which is very beautiful. *Ajrada* compositions are, as a result, especially difficult to portray in notation and impossible to learn without a knowledgeable teacher.

The Lucknow gharana began with Miyan Bakshu Khan, who came there from Delhi or Faizabad to take advantage of the Lucknow nawab's reputation as a generous patron of music (Kippen 66). The main purpose of tabla music at the time was to provide accompaniment for the *tawa'ifs*, whose main artistic mediums were *kathak* dance, and the semi-classical *thumri* and *ghazal* vocal styles (Kippen 22). Thus, the style developed, and is still based on, compositions which are used for accompaniment of these forms. The technical characteristics, besides those obviously taken from the parent Delhi style, were derived from the naqqara and pakhavaj traditions in this region. These were the instruments that traditionally accompanied these forms, and the Lucknow tabla style borrowed heavily from both their playing techniques and their compositional repertoire.

Characteristic of this style, and all styles of the Purab baj, are longer, more complex *taals* (rhythmic cycles), and patterns within those taals, as well as bold, heavy, resonating strokes on the drum, showing the influence of the pakhavaj. From the naqqara, the Lucknow style inherited its *bol* (stroke) timbre and a potential for extremely high speeds (Stewart 191). The Lucknow technique produces very clear ringing *Tim* and *Na* strokes (the primary sounds of the instrument) which were produced more on the *sur* (the middle band of the head, not on the edge) than the *kinar*, giving the strongest and clearest tone

of the drum. The bol *Tun* was also introduced, a stroke using the open resonating sound of the drum and not its overtones.

The Lucknow style, as suggested before, is closely associated with the art form of *kathak* dance, and has been famous as a center of *kathak* for over two hundred years (Kippen 22). *Kathaka* literally means "narrator," and historically is a name given to Brahmins (warrior-priests representing the highest echelon of the four original divisions of the Hindu body) who were privileged to the stories of the *Vedas*, and told of its legends. There are still musicians and dancers in India who claim to have descended from the original *kathaka*. *Kathak* dance always includes the bowed string instrument *sarangi*, which keeps the form of the *taal* through a repeated cyclical melody called the *lahara*, while the *tabla* and dancer work through variations on a theme.

The dancer suggests a story through interpretive or expressive dance, with stylized hand and body movements and suggestive or allusive facial expressions. These stories often pertain to Krishna or other characters of Hindu mythology. The dancer has long strings of bells wrapped around the ankles, and always dances in rhythm with the *tabla*, keeping the form of the *taal* with the feet. The compositions played are a form of *gat*, and the dancer and *tabla* work through the compositions in unison. Sometimes songs accompany the dance as well--the *thumri* vocal form is closely linked with *kathak*, also using expressive and interpretive elements. The *tabla* repertoire for *kathak* is entirely indebted to the *naqqara*, the traditional instrument used to accompany this type of dance. Many famous *naqqara* players became equally successful *tabla* artists in this role, as the technique of the distinctive *naqqara gat* was not difficult to transfer to *tabla*. In many cases, not even the bols of the compositions were changed (Stewart 200).

The Farukhabad gharana is an offshoot of the Lucknow style, using most of the same techniques and closely tied to its repertoire as well. The reason for the similarity is that

the gharana's founder, Vilayet Khan, married the daughter of Bakshu Khan, founder of the Lucknow gharana, and in the form of dowry, received twelve tabla compositions which became the basis of the Farukhabad style. Vilayet Khan went on to develop his own compositional types, most notably creating two new types of *gat*, the *tripalli* and *chaupalli gat* (Shepherd 9). These are long compositions ending in a *tihai* (a rhythmic cadential formula) which go through, respectively, three and four *darja* (levels) of *lay* (tempo). This layering of "tempo," which is actually an incremental increase in the number of subdivisions within the beat, gives an accelerating effect, and is common to Farukhabad compositions. Gottlieb observed that in comparison with its parent style Lucknow, the Farukhabad *gat* tend to have more variety of contrasting sounds within the different phrases of the composition, and also tend to be slower in tempo (76).

The Benares gharana developed as a fusion of various vocal and instrumental, classical and lighter folk styles of accompaniment, as well as incorporating the techniques of several different gharanas. The resulting repertoire is very rich and very versatile. Its creator, Ram Sahai, was able to develop the technique to play very softly like the Delhi style for vocal or instrumental accompaniment, or very heavily for accompanying kathak dance. Ram Sahai developed many innovative fingering techniques and established several new types of compositions. The Benares gharana itself has produced several offshoots or sub-styles in cities like Ramapura, Piyari, and Kabirchoura (Gottlieb 70).

The state of Punjab, situated in north-west India on the border of Pakistan, is geographically, politically, religiously, and culturally removed from the rest of India. Unlike members of other gharanas who have disseminated to different parts of India, most members of the Punjab tabla gharana remain in this area. Its founders, Fakhir Baksh and his son Qadir Baksh, were both pakhavaj players, so the tabla style that developed uses many pakhavaj strokes and compositions. Despite the Punjabi's claim of pure independent

development, there are clear parallels between Punjabi phrases and the purely Purab-influenced phrases of Lucknow and Benares, most likely due to the pakhavaj influence in these regions (Stewart 63). One characteristic of Punjabi style is the tendency to create compositions which can be easily transferred to several different *taals* without changing the basic *bol* structure of the composition.

### Comparison of Gharanas

Comparing the different tabla gharanas in India, the most obvious difference is the division between the Purab style, using a large number of *khula* (open) *bols* (strokes) on the drum, rendering them with strong force of the hand, and the more subtle Delhi style, using only the fingers held close to the drum at all times. Many great players familiar with more than one style, including Ahmadjan Thirakwa of the Farukhabad gharana, feel that the Delhi baj is the most suitable for vocal and instrumental accompaniment, as that is purpose for which the style was designed. The Delhi gharana uses no pakhavaj bols. Some traditional Delhi bol combinations are *DhiNa*, *GeNa*, *TiTe*, *TiRiKiTa*, *DhaGe*, and *DhaTi*. The related Ajrada style has the same clarity of finger technique as Delhi, but tends to use more difficult and complicated bol combinations such as *GeTaKe*, *DhaTraKe*, and *DhiNaGeNaTaKe* (Gottlieb 79).

Within a composition, the Delhi baj has many bol phrases which are varied from *khula* to *bandh* (open, ringing, to closed, "mute" sounds). This is the standard formula for *kayda*, *palta*, *rela*, and other theme-and-variation types of compositions. Purely Purab baj compositions do not tend to show this characteristic, and when found in the gharanas of this style, it is the Delhi influence which is responsible. Phrases of bols in the Delhi style are also more open to interpretation of duration than Purab ones. Purab phrases which imply long-short or short-long durations remain consistent. Finally, individual bols in the Delhi style tend to be grouped into fairly small numbers of two, three, or four bols in a

single phrase, while the Purab style frequently groups bols in strings of four to eight, and less often breaks these into their component parts (Stewart 63).

This attests to the general fact that the Purab styles tend to be more rhythmically complex. The Benares and Punjab styles especially make frequent use of the more challenging taals and difficult *lay* (tempo). There is also a more common use of subdivisions of the pulse in five, seven, and nine, as well as the technique of *bakra*, or combining the time divisions of one taal within another (Gottlieb 79). Similarly, the cadential *tihais* in the Lucknow and Farukhabad styles are often the longest and most complex. Also, traditionally, the Lucknow and Farukhabad players exhibited the most imaginative use and technical control over the *bayan*, the left-hand drum, giving it equal importance to the *dahina*, and making frequent use of *mind*, or the technique of gliding across the bayan to produce bending or rising pitches on the drum.

#### State of Gharanas Today

Today in India, many players receive training in more than one style, although it is still expected that a player use stylistically correct patterns and techniques in any given situation. Certain great players such as Zakir Hussein have been thoroughly trained in several gharanas. Even an earlier figure such as Ahmadjan Thirakwa, who was considered one of the last players to retain all of the traditional techniques of the Farukhabad gharana, was extremely knowledgeable of the Delhi, Lucknow, and Benares styles as well (Gottlieb 71). The separation of the gharanas has become decreasingly valid over time, given the modern player's exposure through recordings, radio, television, and concerts, to all styles of tabla playing.

Even considered in their most traditional contexts, some of the stylistic differences between gharanas may be very difficult to perceive for anyone but the most educated tabla players. For example, there are several *kaydas* attributed to different gharanas which

resemble each other very closely. It is possible that a variation on one gharana's composition could be interpreted as an entirely new composition belonging to another gharana. To sum up the state of the gharana system today, Gottlieb states,

...from the impartial observer's point of view, some of these distinctions which they claim as significant are not always clearly discernible, at least to the extent which the gharana exponents stress them. Indian musicians pride themselves on being traditional, and in general they have followed very closely along the paths prescribed by their ancestors. So, for this reason, it is generally assumed that gharana traditions are being maintained. Yet, in spite of this insistence on tradition, there are definite indications which show that traditions have been changing, and that much of what is today considered to be representative of a particular gharana's style is in fact performed differently from what it used to be.  
(68)

### Discipleship and the Oral Tradition

#### Guru and Disciple

Although today many people learn tabla playing in music colleges, traditionally, it was always through a *guru* that knowledge of the art was obtained. Even now, anyone serious about becoming a professional performer on the instrument knows that discipleship is the only way to obtain the vast amount of necessary knowledge and technique. The goal of becoming a professional performer in India is a lofty one, more so even than in Western concert music. First of all, there are no orchestras or even chamber-size groups in the classical tradition--the typical performance consists of only the soloist, tabla, and drone; therefore, a much smaller number of players are needed. This is coupled with the existence of an extremely large population base for potential performers. Also, economic conditions in India necessarily limit the amount of financial support for the arts. In short, professional classical music in India is an extremely competitive field, perhaps at a level unparalleled anywhere else in the world.

*Guru* simply means "teacher," but the connotations go much deeper than this word implies. Being a disciple implies devoting one's self completely to the guru, as the guru is giving himself completely to the disciple. The utmost respect is shown at all times, the disciple humbling his or her self to open the mind to the vast knowledge which can be obtained. Ranade goes so far as to say, "the guru is regarded to be so comprehensive an entity that both God and the parents are described to have been accommodated in him" (31).

Because of the varying techniques and styles of tabla playing, often contradicting each other, it is thought essential that the student only study with one guru, at least until that style has been properly assimilated. This is where the college system of music is at a disadvantage, because the student may study with several teachers of different gharanas over a short period of time (several years). It is a common occurrence that one teacher explains a phrase in a certain way, while another claims that the first technique is incorrect, and teach a different fingering and hand position of the same phrase, producing a distinctly different sound. Someone who knows only a small amount about several different styles, the "jack-of-all-trades," is discouraged in India, for this person never is able to reach deep into the expressiveness of any one style and really understand its essence. This person, when in the context of performing a certain style, will not be able to render the compositions properly for the desired length of time, and the overall effect of the compositions will be lost.

It is considered vital that a student get a complete education in a specific style, and perhaps only then seek out information about other styles. The protective desire to keep the gharanas stylistically pure is part of what has caused the secretiveness which historically surrounds tabla techniques and compositions. It is said that there have even been instances when a father would not teach certain techniques or compositions to his



own son, if he felt the son might leak this information to members of other gharanas. Due to this type of attitude, unfortunately, much tradition has been lost. This "cold war" attitude of tabla playing no longer is present to the extent that it used to be, but it does show the prevailing feeling that this information is not to be taken lightly, representing a heritage held sacred .

### Tabla Riaz

All this information and guidance, of course, is only as good as it is diligently worked out by the student--as Sharman states, "Hindu musical thought believes theory, however precise and pure, is no substitute for knowledge distilled through personal involvement with the practitioner's craft" (9). *Riaz* is the Hindi term for practice, but again, it implies a much greater meaning than the word "practice" by itself suggests. *Riaz* implies total devotion to the study of the instrument. A serious student of Indian music will do little besides practice. It is recommended that a minimum of eight hours a day is spent in *riaz*, and this time is worthless unless absolutely full mental concentration is maintained for the entire time. Unconcentrated practice is considered worse than no practice, for bad habits become reinforced. Utmost importance is placed on quality of tone, and this is achieved only through slow, steady, concentrated repetition.

There are many stories in India of great musicians who spent incredible amounts of time perfecting their art. The level of playing is so high in India, that it is certain that a professional tabla artist will have studied and practiced a minimum of eight to twelve hours every day for at least twenty years. These figures are if anything understated. The stories of *riaz* admittedly start to take on fable-like proportions. My guru told me that Ahmadjan Thirakwa, as a boy, vowed not to see sunlight for seven years, and indeed fulfilled his vow, practicing in his room day and night, sleeping perhaps only a few hours a night, his brother sometimes holding him up at his tabla. By the end, however, he was one

of the greatest tabla artists in India. There are stories of the tabla player Salari Khan being literally locked in his room for twelve years, with food being given to him through a hatch in the door! These stories, as unlikely as they seem, are most likely true.

Ram Sahai, founder of the Benares gharana, is one of the most fable-like figures of tabla. It is said that after studying with his uncle for sixteen years, and then Modhu Khan, co-founder of the Lucknow gharana, for another twelve years, he was presented in front of a panel of *khalifas* (great tabla masters). It is said that he played for seven straight days and nights, displaying the celebrated 500 compositions of *Dahej Gat*, which were permanently recorded in the minds of the *khalifas*, becoming part of the repertoire. He was from then on accepted as the greatest *khalifa* of the era (Bhowmick 54).

### The Oral Tradition

The validity of this last anecdote aside, certainly one of the most impressive aspects of the Indian musician is the ability to memorize vast amounts of information. This no doubt is a result of an oral tradition of learning and teaching music. Today, as thousands of years ago, the spoken word, not the written, has been the basis of all musical activity. One learns lessons not out of texts, but directly from the mouth of the teacher, and studying the lesson comes from reciting it orally. Notation is used only for skeletal compositions, and nothing resembling a western explicitly-detailed score of music exists in India. Also, written musical material exists only so long as there is a teacher to reveal it. By reading a composition of Indian music, one might be able to imitate it, but will never be able to really get "inside" of it unless that person has an understanding of the entire tradition necessary to create the exact sound and feeling of such a composition, let alone how to embellish and improvise from it.

Knowledge is transmitted orally through a guru--a student would lose grace if dependent on writing rather than learning in the disciplined manner of memorization. It is thought that information must be transmitted directly from the mind of the guru to that of the disciple with no medium in-between. This is common in any musical culture which centers heavily around improvisation--African music, Persian music, and African-American traditions (including jazz), to name a few of the improvisational art forms which are fostered through an oral tradition. Because of its reliance on personal elaboration of skeletal musical material, notation perhaps even becomes an impossibility. Any attempt to notate all of the subtle musical nuances of an Indian musical performance is certain to hamper the spontaneous element which breathes through this music and is the very thing which makes it come alive. It is certainly of interest to note Ranade's claim that all attempts to subject Hindustani musical elaboration to notation began after the British came to power in India (36). This suggests an inappropriateness of applying the standards of a Western visual cultural perspective to a non-Western oral one, save for only basic research purposes.

It is clearly felt in India that an oral system of music is more advantageous than a written one. The advent of the oral tradition in India did not arise out of a lack of sophistication in writing--written texts existed in abundance in ancient India. Therefore, there must be other reasons for this preference. One is the ability of the voice to produce musical nuance which cannot be expressed through writing. All instruments in India have the vocal element as their base. Improvisation techniques for the sitar or sarod, for example, are all based on pre-existing vocal techniques (Batish p.c. Feb 1993). For tabla as well, it is the vocalization of the compositions which is assimilated before they are played on the drum.

One might consider the relationship of speaking or singing, oral communication, to hearing, the aural receiving of music. Writing has no such relationship to the way we hear music. In other words, the oral tradition not only employs the organs of speaking and hearing, but the evaluative criteria used in this process by the brain to interpret music, as opposed to the way music is interpreted by the brain through the medium of sight. I would argue that speaking/singing has a much more direct relationship to the mental evaluation of music than writing. In the end it must be the criteria of how music sounds to the ear which determines its quality, and much of what can be heard or played cannot practically be notated.

All Hindustani musicians are trained by the notion of *kaan taiyaar karnaa* ("to prepare one's ears"). This "preparation" refers to an extremely developed degree of sensitivity and receptivity to the other musicians around you. Even as ancient a text as the *Dattilam* (c. AD 200) refers to *avadhaana*, that is, hearing accompanied by concentrated attention, as a vital component of music (Renade 38). It is no surprise, then, that Hindustani musicians are able to memorize hundreds of long, involved compositional skeletons, as well as improvise lines together in unison. The ability of the tabla artist to improvise variations and cadential formulas in unison with a soloist from the second that the soloist begins them seems to a Westerner astonishing or even impossible. This ability could only arise out of the culmination of thousands of years of an oral tradition, and the way the highly trained Indian musician can hear music as a result, revealing a psycho-motor/ musical sophistication not commonly, if at all, found in Western music.

**CHAPTER 3**  
**FORM AND STRUCTURE IN HINDUSTANI RHYTHMIC THEORY**

**Bols**

The way that tabla is taught orally is through spoken-word syllables. There is one word (known as a *bol*) for each sound or combination of sounds that can be produced on the tabla. Each bol onomatopoeically resembles the sound that it represents, having no literal meaning in and of itself. The system is similar in the European tradition to singing through solfege syllables. Sometimes there are two or more bols which are pronounced the same in Hindi but written (and played) differently. Taught orally, it must be understood through the guru which bol is being described in the context of a particular composition. Example 3.1 shows a basic list of tabla bols.

**Example 3.1** *Basic tabla bols*

<u><b>Dahina</b></u>	<u><b>Bayan</b></u>	<u><b>Combination Strokes</b></u>
Tā, Nā	Ge (Ghe, Gi, Ga)	Dha
Tin	Ke (Ki, Ka)	Dhin
Ti, Te, Ta	Kat	Dhet
Tun		Dhir
Ri, Re, Ne (Na)		Kra, Kran
Tak		
Thir		
Din		

The relationship of certain stroke types to their spoken-word counterparts can vary between the teachings of different styles. This occurs in two ways. The first is that the spoken bol may change according to the tradition and dialect of a certain geographical area, but the stroke itself will remain constant. The other instance is when spoken bols

sound the same, but the strokes change according to different contexts and compositional phrases, causing several different sounds on the drum to have the same onomatopoeic representation. However, as Stewart notes, the basic relationship of a bol to its stroke in terms of its position on the drumhead and its essentially resonating or non-resonating sound remains constant in all traditions of tabla (22).

The correct position for the hands and arms is another trait which is fairly universal. The arms are held in a straight line from hand to elbow; undue bending of the wrist causes strain and the inability to correctly produce the tabla bols. The thumb, although never used to strike the drum, should be held closely in to the index finger. If it separates (a common habit among beginning players), the proper leverage will not be present to correctly produce the sounds.

### Taal

The word for "rhythm" in Hindi is *taal* or *tala*, however, it also represents the basic cycles of structural organization in Hindustani music. The literal meaning of the word is "palm of the hand" (Gottlieb 37), thus named because Indian rhythmic cycles are measured by counting out the number of beats (*matras*) in the cycle using finger counts, claps, and waves on the hands.

The oldest known taals in India are described in the *Natya Sastra*, and are called the *Marga talas*. These numbered only five, and all had either eight, six, or twelve *matras*. During India's "medieval" era, many long and complex taals were established. Known as the *Desi talas*, these are epitomized by a list of 120 *talas* described in the *Sangita Ratnakara*, written in the thirteenth century. The "modern" period in taal history is from the sixteenth or seventeenth century on, when taals reverted back into less numerous and complex forms. This probably happened because there was a continual increase in the

speed and complexity of the patterns and improvisations within the taals themselves (Robert E. Brown 16).

Nikhil Ghosh states that is not known how the taals used in past eras developed into the ones used today, nor is it known the compositions used in these older taals. It is not even known who composed the *thekas* (the basic defining composition of a taal) that are universally used today in North India ("Science" 2). However they developed, there are about thirty to thirty-five taals used today in Hindustani music, although theoretically there are many more, and about twelve of these which are in wide and frequent use.

Example 3.2 gives examples of the lengths of some basic taals.

*Example 3.2 Matra (beat) lengths of some basic taals*

*Dadra*: six-beat cycle

*Roopak*: seven-beat cycle

*Kaharwa*: eight-beat cycle

*Jhaptaal*: ten-beat cycle

*Teentaal*: sixteen-beat cycle

*Chautaal*: twelve-beat cycle

*Ektaal*: twelve-beat cycle

*Deepchandi*: fourteen-beat cycle

*Chanchar*: fourteen-beat cycle

*Dhamar*: fourteen-beat cycle

Even in these few examples we find examples of taals that have the same number of *matras*. There are many instances of taals of the same total length. These are differentiated from one another by their *thekas*, or fundamental compositions, which show the way the beats are grouped or divided internally, and imply an entire repertoire of compositions and a style of improvisation for that particular taal.

### Compositional Structure

The length of one cycle of any taal is called one *avartan*, and each internal grouping of beats which structurally belong together within the taal is called a *vibhag*. The most important beat of any taal is the first, the beginning of the cycle, which is called the *sam*. All compositions and improvisations, although they may obscure the cycle or even skip the

beginning of the cycle once or twice, will eventually come back and accent the *sam*. The counterpart of the *sam*, and the second most important beat in the cycle, is the *khali*. This represents the "off" side of the composition. In order to visually see how this structure is laid out, Example 3.3 is given as a sketch for the basic structure of *teentaal*, the most common classical taal. Its sixteen beats could be thought of as equivalent to four measures of 4/4 time in Western music.

### Example 3.3 *Teentaal theka*

<i>avartan</i>																
<i>bols:</i>																
	<u>Dha</u>	<u>Dhin</u>	<u>Dhin</u>	<u>Dha</u>	<u>Dha</u>	<u>Dhin</u>	<u>Dhin</u>	<u>Dha</u>	<u>Dha</u>	<u>Tin</u>	<u>Tin</u>	<u>Tā</u>	<u>Tā</u>	<u>Dhin</u>	<u>Dhin</u>	<u>Dha</u>
beat: 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
	<i>sam vibhag</i>			<i>tali vibhag</i>				<i>khali vibhag</i>			<i>tali vibhag</i>					

The relationship between the *sam* and the *khali* in tabla compositions is an important concept. For all theme-and-variation type compositions, including the *theka*, *kayda*, *rela*, and *peshkar*, and discounting the through-composed, non-embellished compositional types such as *gat* and *tukra*, every composition has the internal logic of a structural polarity. There are always two sides to these compositions thought of as, open and closed (*khula* and *bandh*), male and female, on and off, representing, like the ying/yang, the duality of all things in the universe. It is similar to the philosophy of universal symmetry, maintaining that for everything that is, there is what it is not, and that things exist only if their opposites exist.

In tabla playing, it is the organization of the sonorities which determine this relationship. In the *sam vibhag*, the open notes of the *dahina* (right-hand drum) are always accompanied by open, resonant sounds on the *bayan* (left-hand drum). This is represented by the bols *Dha* and *Dhin*. In the *khali vibhag*, the open sonorities of the



bayan cease, shown by the bols *Ta* and *Tin*. For this reason, the different sections of a cycle are also sometimes referred to as full and empty. In short, these types of compositions are always set up so that there are two halves, the first of which begins full and ends empty, and the second of which begins empty and ends full, bringing the cycle around again to its beginning. This concept might be thought of as parallel to Western common-practice tonality schemes such as the sonata form, i.e., an exposition in a tonic key moving to its dominant, followed by a section moving from the dominant back to the tonic.

Stewart believes the reason that the bayan is not played on the *khali* relates back to the naqqara, which she considers to be the instrument responsible for providing the tabla with its thekas, and is the reason most thekas are restricted to bols traditionally used on the naqqara: *Na/Ta, Tin, Dha, and Dhin* (97). In all drums of this type, the structure of the meter is shown by alternations in the presence or absence of pitch (open sounds). The reason that the alternation is on the third vibhag is, as Stewart states, that "the first matras of the first and fourth vibhags are the most vital for structural recognition. The only vibhag which can provide structural relief is the third. This is therefore distinguished in pitch, stress, and timbre from the others... There is no more precise structural signal than the periodic absence of the low resonating left-hand stroke of the naqqara" (97). The *bayan* is of course the equivalent for tabla. In light of this study's intention to find common ground for musical performance in the Hindustani and jazz traditions, it is interesting to note that the most common song form in jazz, AABA, also depends on the third of four sections to provide structural relief within the form.

Thus, there are really two levels of form in Hindustani rhythm--that of the taal, and that of the compositions within the taal. As complicated as these compositions become, there is always some reference to the greater form of the taal cycle--the *theka* is always in the

mind of the drummer, whether it is being referred to or not. Even the theka itself is continually varied--in the role of accompaniment, the tabla is playing the theka for the majority of the performance, so variations, known as *prakar*, are employed, especially at slow tempos, to avoid monotony and keep the tempo moving for the soloist. When the tabla itself is soloing, the player has the difficult task of creating improvisations which have a logical form unto themselves, while always maintaining the larger form of the cycle.

### Aamad

Form must always be present, but the content is what truly distinguishes one player from the next. There is obviously quite a large gap between the fixed number of beats and accents of a basic taal and the way that the tabla artist can create a wealth of beauty out of this scanty material. The *sam*, the all-important beginning of the cycle, is always the cadence point for these strings of rhythms. *Aamad* is the word for the way at which the *sam* is arrived. Having good aamad is one of the most important considerations of a good tabla player. Compositions must always begin distinctly, and continually gather themselves to give a constant sense of moving forward towards the sam. This must be done through creative manipulation of rhythm into a well-designed architecture.

The sam must be reached not only correctly, but with the utmost aesthetic integrity. This might be accomplished by leaving out the note of the sam, creating a space instead of an accent (for everything that is, there is what it is not). Or it might be achieved by only *implying* the sam within the context of a continuing composition, which, when reaching the sam on the second or third time around, gives an even greater release from the tension that had continued to build from skipping the sam previously. As Saxena states in "The Fabric of Aamad," the desired effect is achieved "above all, by making the sama appear as the natural culmination of a self-evolving pattern of clearly marked accents; in which case the sama seems to *emerge*, not merely to come" (40).

### Interpretation of Written Tabla Notation

Traditionally, as previously discussed, tabla patterns are not notated, but rather, are transferred orally from guru to disciple. The student must rely on memorization and practice to ingrain this knowledge in the mind. Although except for skeletal figures, music has historically not been widely notated, the reality of an increasingly visual world has certainly affected modern India. Tabla patterns are now sometimes notated for learning purposes, although in general, tabla still remains an oral tradition.

The system of musical notation most commonly found in India was developed by the great music educator, Vishnu Narayan Bhatkhande (1860-1936). Bhatkhande's notation system is simple; however, since it describes what is still primarily an oral tradition, it can be imprecise if one is not very familiar with the tradition. The notation serves only as a memory aid, and to understand even the precise rhythm, much less the feel and inflection, a knowledgeable teacher is absolutely necessary.

The imprecision of notation in tabla patterns occurs in two ways. First, strings of *bols* are often put together without explaining the exact rhythmic pattern. This commonly occurs with familiar phrases, where the tradition of performance practice would imply the exact execution of the rhythm. Secondly, bols are represented by Hindi letters which are translated phonetically to English, resulting in a great degree of variation and confusion in spellings. This itself can happen in three ways: 1. The same bol in Hindi can be spelled differently in English (e.g., ge and ghe; tun and thun), 2. More than one bol spelling, in Hindi and English, can represent essentially the same sound (e.g., ge/gi/ga or ke/ki/ka), 3. Bols written differently in Hindi that sound almost the same phonetically are written the same in English, so that the same word in English could represent several different bols depending on context. Music educators and ethnomusicologists have attempted to

circumvent this problem by using dots and dashes above certain letters to indicate the different bols--this practice, however, is rather inconsistent.

Nevertheless, beyond these semantic problems, the notation of tabla compositions is quite logical and facile to learn. Each taal cycle is comprised of a prescribed number of beats (*matras*). Each matra is represented by a horizontal line underscoring the bols contained in that matra. Thus, in a 16-beat cycle of teentaal, there would be 16 lines; in the 7-beat roopak taal, 7 lines. The time within each beat is normally divided evenly between however many notes appear in the matra. For the sake of simplicity, if we think of each matra as a quarter-note, then this short list of examples would be interpreted as follows:

*Example 3.4 Matra interpretation*

Dha = 1 quarter-note

Dha Ge = 2 eighth-notes

Ti Ri Ki Te = 4 sixteenth-notes

Dha Ti Te = 1 eighth-note triplet

Rests are notated by either an "S" or a dash (-), again the rest equaling one unit in an equal division of the total units in the matra. Sometimes a comma is placed in a matra, indicating that this is the point at which the beat is divided in half.

Capitalization of bols and abbreviations of phrases are areas of great inconsistency in tabla notation. Sometimes every bol is capitalized, sometimes the first in each matra, sometimes the first in each short phrase of bols, sometimes none are capitalized. This can be confusing to someone who is not a tabla player, especially in a long string of bols such as *kititaktirikittaktaktirikit*. The preceding phrase also shows the phenomena of abbreviation of bol phrases. Common phrases are often shortened to read as they would

be spoken, especially at fast tempos. For example, *ti ri ki te* becomes simply *tirikit*, and *ki ti ta ke* becomes *kititak*. Another inconsistency is that the rule of even subdivision of the matra is often broken. Common phrases are often written without exact rests written in, for example, *dhatirikititak* is interpreted as *dha - ti ri ki ti ta ke*. One must be familiar with the tradition of performance practice in order to correctly interpret tabla notation.

For the purposes of this study, in order to make these complications as clear as possible, I will adhere to a consistent practice, recommended to me by Indian music educator Ashwin Batish. There are several bol-words used commonly in this study that represent more than one bol-stroke. In compositions where a single bol-name has more than one stroke usage, it is understood by context which bol-stroke is implied. Usually in this case, a single bol-word represents one open, resonant sound, and one closed, non-resonant sound. In these cases, a dash will be used over the resonant bol (e.g., *nā/na*, *ta/tā*). Notations in this study make no attempt to express every subtle nuance of the composition (as in a system such as Kippen's), as this is not my purpose; therefore, certain bols with the same written name may not be differentiated in notation. Subtleties of tabla practice such as this can only be properly learned through study of the tradition, orally, with a knowledgeable teacher. Descriptions of most bols, including the punctuation used, are found in Appendix B.

Two other aspects of the notation system used in this study should help to avoid common confusions. Firstly, rests will always be included in the written notation as they occur. A single line equals one matra (beat), and each beat has equal time-value, no matter how many bols or rests occur within the beat. Secondly, every bol will be capitalized, in order for readers unfamiliar with tabla to see each bol clearly. Although following this practice could make the compositions appear awkward to a tabla player, I feel it will simplify understanding for the general reader.

## CHAPTER 4

### COMPOSITIONAL TYPES IN THE TABLA REPERTOIRE

#### Pre-composed Compositions and Fixed Forms

The tabla repertoire is essentially comprised of two general categories of compositions, the first, different types of pre-composed compositions, and the second, "fixed forms" within which variation and improvisation occur. Pre-composed pieces are handed down from guru to disciple and memorized. Many are very old, having been handed down through the gharana tradition. Compositions are considered a commodity, and even today, some are viewed as extremely valuable information, known by only a few select masters. Fixed forms refers to stylized arrangements of tabla phrases that are characteristic to particular types of compositional structures. Only the basic composition is pre-composed, and performers are free to improvise and modify the phrases (within intricate stylistic parameters) to create new compositions. These parameters "not only apply to the number of phrases in a composition, but more importantly to the way in which phrases correspond in time-length with the structural dimensions of the taal" (Gottlieb 47). Maintaining the basic *khula-bandh* (open vs. closed sound) relationship within the phrases of the composition is one important element in maintaining these structural dimensions. In both categories, there are many types of compositions, each with different characteristics. Example 4.1 groups the basic compositional types into their respective categories.

Example 4.1 *Compositional types*

Pre-Composed Compositions

Theka (basic)  
Paran  
Tukra  
Gat

Fixed Form Compositions

Theka (prakar)  
Kayda  
Rela  
Laggi

Theka

The *theka* is the composition in any *taal* (time cycle) which defines that taal. In effect, it is the backbone of a taal, the basic pattern from which everything else flows. Example 4.2 shows the thekas of some of the most common taals. The letters and numbers beneath the bols define the *vibhag* structure of the taal. The letter *X* denotes the *sam*, or beginning of the cycle, and all the bols beginning from the *X* until the first number comprise the *sam vibhag*. Bols above a number and continuing until an *X* or *O* constitute a *tali vibhag*. Bols above an *O* (which itself marks the *khali*, or off/closed side of the composition), and continuing until a number, represent the *khali vibhag*. The vibhag structure defines the natural stresses and internal beat groupings of the cycle, and most of the material played in any taal will conform to the vibhag structure of that taal defined by its theka.

When counting out the beats of a taal, one claps on the sam, completes the vibhag by counting with consecutive fingers tapped on the palm of the hand (one finger for each matra), and claps again on any number (again completing the vibhag with the fingers). A wave is used to denote the khali matra, executed by turning the clapping hand over to the opposite side, so that the palm faces up. The same finger motion is used to complete the beats of the khali matra as well.

Example 4.2 *Common thekas*

Teentaal: Dha Dhin Dhin Dha Dha Dhin Dhin Dha Dha Tin Tin Tā Tā Dhin Dhin Dha  
 X 2 O 3

Kaharwa: Dha Ge Nā Tin Nā Ke Dhi Nā  
 X O

Dadra: Dha Dhin Nā Dha Tun Nā  
 X O

Roopak: Tin Tin Nā Dhi Nā Dhi Nā  
 O 2 3

Jhaptaal: Dhi Nā Dhi Dhi Nā Tin Nā Dhi Dhi Nā  
 X 2 O 3

Ektaal: Dhin Dhin DhaGe TiRiKiTe Tun Nā Kat Tā DhaGe TiRiKiTe Dhin Nā  
 X O 2 O 3 4

Deepchandi: Dha Dhin - Dha Dha Dhin - Tā Tin - Dha Dha Dhin -  
 X 2 O 3

Chanchar: Dhin - Tā Dhin - Tā - Dhin - Tā Kran - Kran -  
 X 2 O 3

Although the theka pattern itself is pre-composed, it is still a fixed-form type of composition, since tabla players always embellish upon the original pattern. Theka variations are known as *prakar*. Although there are no sets of formal variations for a theka as there are for theme-and-variation types of compositions such as *kayda* and *rela*, variation of the theka occurs freely, again within certain parameters. Most importantly, the bol and vibhag structure of the theka must always be maintained; that is, the variation must be tied to the proper theka in both form and function. It especially cannot stray so far from the original that it could be considered a separate category of elaborative pattern, i.e., no longer a theka (Stewart 103).



### Kayda

One of the most important fixed form compositional types after the theka is the *kayda*. A *kayda* is a "theme" with a structural pattern of the general classification *gat*, which is followed by a set of formal variations on that theme, called *paltas*. *Kayda* are composed to fit well with the skeletal structure of the *taal* (defined by the *theka*), and also be constructed so that variations are easily fashioned. Stewart generalizes that a *kayda* is "any self-contained cyclic pattern which conforms somehow to the underlying *taal* structure and which doesn't end with a *tihai*" (161). The *tihai* is a three-part cadential pattern ending on the *sam* (beginning) of the cycle which will be discussed later in detail.

The *kayda* probably was not fully developed as a compositional type until the early twentieth century, and its innovation is credited to Ustad Natthu Khan (d.1940) of the Delhi gharana (Stewart 190), however, the general concept of a theme-and-variations type of composition has probably been present throughout the entire history of both Hindustani and Karnatak music. *Kaydas* are most commonly performed in certain *taals*, especially *teentaal*, but also the folk *taals* *kaharwa* and *dadra*, and the classical *taals* *roopak* and *jhaptaal*.

*Paltas* are systematic variations on a *kayda* theme. When learning the *tabla*, *paltas* are given from guru to disciple and memorized; however, once performance within a *kayda* becomes comfortable, they are improvised. The parameters for constructing a *palta* are very conducive to improvisation, for they involve taking a *kayda*, looking at its large and small component phrases, and reconstructing these phrases into a new order in a musical way. Thus, successful performance of *paltas* exhibits control over bol articulation and skill in varying bol patterns in a well-constructed manner usually at high speeds and within any given *taal*.

When a kayda is performed in a solo, after it has been presented, it is played at double speed, establishing a double time tempo. It is at this new tempo that the paltas are played. Although the kayda composition itself does not internally contain a tihai (as in other compositional types such as *tukra*), after an undefined number of paltas, kaydas close with a tihai, usually constructed with phrases from the kayda itself, and taking the space of one or more entire cycles of the taal being played. Generally, in tabla solo performance, the theka or a theka *prakar* (variation) is then restated, before going on to another kayda with its paltas and tihai, etc. Example 4.3 shows a basic kayda in teentaal, followed by a few paltas and a tihai. Notice that all of the phrases in the paltas derive from the parent kayda.

Example 4.3 *Teentaal kayda*

Dha Dha Ti Te Dha Dha Tun Nā Ta Ta Ti Te Dha Dha Tun Nā  
X 2 O 3

*Paltas:*

- a. DhaDha TiTe DhaDha TiTe DhaDha TiTe DhaDha TuNā  
TāTā TiTe TāTā TiTe DhaDha TiTe DhaDha TuNā
- b. DhaDha TiTe TiTe TiTe DhaDha TiTe DhaDha TuNā  
TaTa TiTe TiTe TiTe DhaDha TiTe DhaDha TuNā
- c. TiTe DhaDha TuNā TiTe DhaDha TiTe DhaDha TuNā  
TiTe TāTā TuNā TiTe DhaDha TiTe DhaDha TuNā

*Tihai:*

DhaDha TiTe DhaDha TuNā Dha Kat DhaDha TiTe  
X 2

DhaDha TuNā Dha Kat DhaDha TiTe DhaDha TuNā Dha  
O 3 X

### Rela and Laggi

*Rela* and *laggi* are two similar types of theme-and-variation compositions that are densely composed to produce very fast phrases over the time. *Laggi* are derived primarily from the *naqqara* and *dholak* repertoire (Stewart 142), and are short compositions usually found in "light music" and semi-classical forms such as the *ghazal* and *thumri* vocal styles, as well as *kathak* dance. The Lucknow *gharana* repertoire, probably due to the prominence of the *kathak* tradition, has a great number of *laggi*. These developed in the late nineteenth/early twentieth centuries, for accompanying songs and dances of the *tawa'ifs* (dancing girl/courtesans of the Muslim courts), mostly in folk *taals* such as *kaharwa* and *dadra* (Kippin 175).

Both *laggi* and *rela* are comprised of relatively short phrases (two to four *bols* long), and are always at *ati-drut lay* (very fast tempo), often over one thousand individual strokes per minute. *Laggi* strokes are primarily open sounds, using predominantly alternating fingerings, while *rela* strokes are primarily closed sounds, using alternating fingerings combined with hand strokes (*DhirDhir*). The compositions themselves are very repetitious, usually fairly symmetrical, and generally conform (like other theme-and-variation types such as *kayda*) to the *vibhag* structure of the *taal*.

The parameters for improvisation of *rela*, however, is not as strict as often found in other variation-type forms. *Paltas* for *rela* are improvised similarly to *kayda*, but there are fewer structural rules. *Tabla* players generally have more like a repertoire of fast, often similar phrases which they may group as they please, given the structure of the *taal*. Some characteristic closed *rela* phrases are *DhirDhir*, *DhirDhirKiTiTaKe*, *ThirThir*, *TiRiKiTe*, *KiTiTaKe*, *TiRiKiTiTaKe*, and *TaKeTiRiKiTiTaKe*. Certain open phrases are often included to help define the structure of the *taal*, such as *DhiNaGiNa*, *GeReNaGe*, *DhiNaTaKe*, *NaGeTeGe* (Stewart 149). Even more common for beginning a phrase are

patterns that have one or two open bols and the rest closed, such as *Dha-TiRiKiTiTaKe* and *Tu-Na-KiTiTaKe*. Example 4.4 shows a rela in the seven-beat roopak taal (without its paltas and tihai).

Example 4.4 *Roopak rela*

Dha-TiRiKiTiTaKe DhirDhir,KiTiTaKe Dha-TiRiKiTiTaKe  
0

Dha-TiRiKiTiTaKe DhirDhir,KiTiTaKe Dha-TiRiKiTiTaKe Tu-Nā-KiTiTaKe  
2 3

Ta-TiRiKiTiTaKe ThirThir,KiTiTaKe Ta-TiRiKiTiTaKe  
0

Dha-TiRiKiTiTaKe DhirDhir,KiTiTaKe Dha-TiRiKiTiTaKe Tu-Nā-KiTiTaKe  
2 3

Pre-Composed Forms

There are several types of pre-composed compositions including the *paran*, *tukra*, and *gat*. Concise and exact definitions of these types can be elusive, for these titles imply both large general categories and smaller specific types of compositions. In the general sense, especially, it is difficult to specifically define these compositional forms, for they are not always distinct, the terms covering several similar types of "self-contained elaborative patterns" (Stewart 199). There is a lot of material which overlaps between what is labeled *tukra* and *paran*, and the term *gat* can even be used to include compositions of these two other types. These would then be simply thought of as different varieties of *gat*, of which there are many. The term *gat* can also refer, in sitar and sarod instrumental performance, to both the basic melodic theme (usually one rhythmic cycle in length) which is returned to periodically after series of elaborations, and the entire performance of the raag. In terms



### Tihais and Mukras

Finally, there are two compositional types which do not fall into either broad category, because they are not compositions which can be isolated, but rather, function as rhythmic cadences at the end of previous compositions. They can finish a pre-composed composition such as a *tukra*, or be improvised at the end of fixed forms such as *kayda* and *rela*. These are the *mukra* and the *tihai*.

*Mukras* are short cadential formulas which function to increase the rhythmic density of a pattern to climax at the *sam* of a cycle. The resulting increase of tension, relieved when the *sam* is reached, creates the tension-release polarity of cadential motion. *Mukra* patterns derive largely from the *naqqara* and *dholak* traditions, and in the *pakhavaj* tradition, the term *mohra* is used to describe similar patterns (Stewart 231). As a result, for both *tabla* and *kathak* dance, *mohras* refer to *pakhavaj* patterns which contain a cadential *tihai*. Similarly, the spelling *mora* is used for such patterns in *Karnatak* music. The difference between the *mukra* and the *tihai* is that *mukras* are generally shorter and more symmetrical (longer *mukras* could be easily taken for *tihais*). *Mukras* are most often used to end a cycle of *theka* with a short, improvisatory flourish, sometimes with the *bols* deriving from the *theka* itself.

*Tihais* are usually longer, and are less symmetrical than *mukras*, and, like the *mohra*, derive primarily from the *pakhavaj* and *kathak* traditions. In theory, a *tihai* is a pattern beginning at any point in the *taal*, which when repeated identically three times, comes out on the *sam*. In practice, however, *tihais* may, as an exception, sometimes contain only similar patterns, can repeat more than three times, and may not even end on the *sam*. For example, occasionally either the soloist or the *tabla* accompanist will begin a pattern which appears to be a *tihai*, but will purposely end slightly before or after the *sam*, and continue with further improvisation. The idea is to try to confuse the other musician (and the

audience), and keep everyone alert. This is an especially common phenomena for the soloist, trying to pry lose the tabla accompanist's orientation in the taal. Hindustani master musician Ashwin Batish likened a performance of classical Indian music to a good-natured battle between soloist and accompanist. In this kind of battle, tihais are probably the most powerful weapon.

Theoretically, any tihai could be made to work out from any point, in any taal, at any lay; however, as Stewart states, "...as with all aspects of tabla performance, each type of elaboration is constructed to fit a precise situation which encompasses style and structure" (250). The guidelines governing stylistic taste in rendering tihais are mostly common sense. Tihais normally begin, for example, from structurally important points in the taal cycle, whether it be from the beginning of a vibhag, or just a strong matra. Length of the tihai is another important stylistic consideration. Shorter tihais are most often found in short folk taals such as the six-beat dadra and the eight-beat kaharwa. These taals are usually performed at *madhya-drut* to *drut* lay (medium-fast to fast tempo).

This reveals a relationship between the length and speed of a taal and the length and speed of tihais rendered within that taal. Generally, the shorter the taal cycle, or the faster the lay, the shorter the tihai. Longer tihais are found in longer cycles and slower tempos. Longer tihais are associated with the more classically oriented taals such as teentaal, and slower jhaptaal and roopak. It would be in bad taste, for example, to play a sudden very short fast tihai in a *vilambit* (slow) teentaal, since this would conflict both with the length of the taal, and the tempo. As with all Indian music, proportion must be maintained at all times.

Although the internal structure of each repetition of the primary phrase in the tihai must remain the same, the duration of the space between each repetition is left open to the needs of the particular taal, and the matra from which the tihai began. There are two

fundamental approaches to the use of space in the construction of a tihai: *damdar* tihais and *bedam* tihais (Stewart 245). The *damdar* tihai contains a pause in-between each structural phrase of the tihai equal in length to at least one bol of the pattern, and usually being at least a half-matra or more in length. Each phrase of the pattern is usually constructed with an odd number of bols, in order to naturally place the stress on the final bol of the phrase, for example, *Dhi Na Gi Na Dha* or *Ti Ri Ki Te Dhin*. Varying the length of the pause in-between these phrases will not affect this relationship, serving only to change the total length of the tihai. In a *bedam* tihai, there is no pause in-between phrases, and each phrases connects directly to its repetition, as Example 4.6, a tihai comprising one full cycle of *roopak* (seven beats) shows:

Example 4.6 *Roopak tihai*

DhiNāDhaGe TīNaGiNā Tin-DhiNā  
O

DhaGeTiNā GiNaTin- DhiNāDhaGe TīNāGiNā Tin  
2 3 O

Tihais originally composed as *damdar* can be sometimes made to sound *bedam* by filling in the spaces with bols. This would be most often done in a slower tihai with a long structural space. One final characteristic of tihais is that the end of each phrase is always the same as the first bol in the theka, usually *Dha* or *Dhin* (except *roopak taal* which is *Tin*). This is necessary because a tihai generally leads back to the theka, so that the last beat of the tihai is actually the first beat of the theka. Stewart likens this function to that of the tonic triad at the end of an important section in a Western classical-period composition (248). It is what everyone expects, and if it does not occur, then it is very much the intention of the performer to undermine people's expectations.



The ability of the tabla performer to produce tihais at will, as well as match those of the soloist during the time of improvisation, is one of the most impressive aspects of tabla playing. Very often it is difficult to distinguish between what is pre-composed and what is improvised, something that can be said of most Indian music. Many specific tihai compositions, as well as many structural patterns for creating tihais, are well fixed within the mind of the performer. During an improvised performance, the tabla player instantaneously fits particular phrases into the necessary structural dimension to make the tihai come out on the sam. The player must spontaneously decide the starting point, the length of each individual phrase, and the space between each phrase, all as it relates to the remainder of the taal cycle.

If the soloist begins the tihai, the tabla accompanist must anticipate all of these factors within the mind of the soloist, so that the tihai is played in unison. This ability seems almost impossible to the listener, especially to those who have not been trained in an oral tradition; however, to the seasoned tabla player, having spent many thousands of hours perfecting his craft, tihai calculation becomes second nature. In this sense, it is truly improvisation. There is no time for premeditation when the music is flowing, sometimes at very fast tempos, and a tihai may have to begin at any point, even halfway through a beat in the cycle. Not only need the tihai be structurally correct, but it must make stylistic and musical sense. Each tihai must seem a natural outgrowth of the patterns that were being worked with at the moment the tihai began.

#### Adaptability of Compositional Types to the Drumset

The purpose of this project is to consider the possibilities of cross-cultural music performance using the forms, structures, and compositions of the tabla tradition on the drumset in an African-American jazz and related Western musical contexts. One of the first considerations in doing this must be deciding which types of compositions to use.

Can any tabla compositional type be used in any context, or are certain types of compositions more conducive to drumset performance than others?

If this kind of cross-cultural music exchange is to be successful, the full integrity of each tradition must be maintained in the final result. Since jazz is ensemble music, the drummer is expected to play in a manner that somehow supports the ensemble. When playing behind the ensemble, the drummer generally uses patterns that create some sense of a timeline or "groove." Thus, in this type of cross-cultural musical context, the types of tabla compositions that would be more conducive to drumset adaptation are the fixed-form types, which are repetitive and continuous, rather than the pre-composed type, where a composition has a fixed beginning and ending.

The role of the drummer in a jazz ensemble is not so different from the role of the tabla accompanist behind a soloist. In an accompanying role, the tabla player will play mainly theka and theka prakar, kayda, rela, palta, and tihais--all fixed-form compositional categories. A tabla player would of course never play a pre-composed gat or tukra underneath a soloist who was not playing the same composition, for it would obviously clash. The accompanist would have ceased to play a supportive role. The pre-composed types of compositions are used primarily in tabla solos, unless they have been worked out together with the soloist in an accompanying role. This relationship of the tabla accompanist to the soloist directly parallels that of the drumset player to the ensemble. Although neither is subordinate to a soloist or ensemble, both must play in a manner that fits well with the soloist or ensemble. Pre-composed gat, tukra, etc., can work on the drums, but unless worked out in unison with the ensemble, will only work in the context of a drum solo.

Fixed form compositions such as theka, kayda, and rela, open up the structure of the taal for the drummer because they can be repeated as long as necessary and varied

endlessly. Tihais also work very well on the drums behind an ensemble, especially shorter ones which can be used as "drum fills" to end common 8, 12, or 16 bar phrases in a jazz composition. The musical result of using tabla compositions on the drumset is the creation of an original style on the drumset. Since jazz by its nature is able to assimilate major stylistic influences while remaining true to its roots, and since every attempt will be made to maintain the integrity of the tabla tradition in the adaptations, hopefully a style will emerge that is true to both traditions.

## CHAPTER 5

### BRIEF HISTORY OF THE DRUMSET

This chapter is intended to provide a basic understanding of the development of the drumset and the stylistic periods through which it has gone. This is necessary to the present study because in adapting tabla compositions to the drumset, there will be an attempt to maintain traditional techniques and stylistic phrasing on the drumset as much as possible. The descriptions in this chapter are intended to provide an overview of the subject--for a more complete history of the development of the drumset, refer to Theodore Dennis Brown's work, A History and Analysis of Jazz Drumming to 1942 (Ph.D. dissertation, University of Michigan, 1976), which provides extensive historical and stylistic background on early drumset styles. All references to "Brown" in this chapter refer to this work, and not Robert Brown's article on *tala*. The Drum: Concepts of Time and No Time, by royal hartigan (M.A. Thesis, Wesleyan University, 1983) includes stylistic analysis of the drumset through modern styles. Billy Mintz's Different Drummers also includes some useful notated examples of many of the great drummers from the 50s through the 70s.

#### Origins

A drumset is a somewhat standardized assemblage of percussion instruments, arranged so they may easily be played by one musician. The present day drumset developed over a period of about fifty years, roughly spanning the first half of this century. Its development originated from two main spheres of influence: one, the military and dance drumming tradition of nineteenth-century America, and the other, the musical aesthetic of West African drumming, indirectly carried over through the influence of African-Americans who are the primary progenitors of the drumset tradition.

Many scholars have drawn parallels between the sounds of certain African percussion instruments and their adapted counterparts on the drumset. It is known that African musicians brought to America adapted aspects of their music to instruments and objects that were readily available to them, since legislation existed in America restricting the musical activity of slaves, and especially the playing of drums. Certain rhythmic patterns commonly used in early drumset playing also can be traced to Africa, such as the "Charleston" rhythm ( ♩ ♩ ♩ ) which can be found in the bell and rattle patterns of African dance drum pieces such as Kpanlogo, Gahu, and Yeye Sovu, among others. Other traits of African music which have been assimilated by jazz include emphasis on improvisation, variety in tone and timbre, a physical approach to sound production, lack of performer-audience separation, an emotional/spiritual musical aesthetic, and a personal and communal transcendent-ecstatic function of music.

American military and dance band drumming also had an integral influence on the development of jazz drumming, specifically the instruments (snare drum, bass drum, cymbals) and the playing techniques (rudimental snare drumming techniques such as *flams*, *ruffs*, and *rolls*). There were many black drummers in nineteenth century American bands and fife and drum corps, and it was primarily the way in which these drummers adapted rudimental drumming into a unique, personal style that developed into jazz drumming. As Brown writes, "[b]lack percussionists learned American drumming techniques on instruments of European design and thus established a Black drumming tradition based upon an Afro-Euro-American drumming style that has been carried on by Black jazz drummers since the beginning of this century" (69).

The first musicians required to play several percussion instruments at the same time creating some fashion of "drum set" were military drummers, who played both bass drum and cymbals together, and 19th century theater drummers, who often were required to

play all the percussion instruments in the theater pit (Brown 95). The latter were the first to be called "trap drummers," a name still used for drumset players. "Traps" referred to "trappings," or the numerous percussion accessories these drummers used, including all sound effect devices and novelty percussion instruments. Early drumset players often had many accessory instruments that they used as effects in addition to the basic snare drum, bass drum, and cymbals, such as whistles, bells, woodblocks, gongs, chimes, and xylophones.

#### Ragtime Era 1895-1911

The earliest true drumset players arose during the prominence of ragtime early in this century. According to Brown, ragtime drummers generally used military drumming rudiments such as open rolls, flams, and ruffs; however, what differed greatly from the military style was the feeling of improvisation central to ragtime drumming (132). Drummers were also used at this time for vaudeville shows and to accompany silent movies with sound effects, both of which required highly creative improvising musicians.

The ability of drummers to play more than one instrument at the same time was greatly expanded by two important inventions: the bass drum pedal, and later, the high-hat pedal. Before the invention of the bass drum pedal, ragtime drummers were able to play the bass and snare drums together using a technique known as "double drumming" (Brown 98). By tilting the snare drum at a sharp angle towards the bass drum, the drummer was able to move quickly with one hand between the two drums. Although many drummers were to continue to use the double drumming technique through the 1920s, the technique eventually gave way to several types of bass drum foot pedals, available beginning in the late 1800s, which allowed the drummer to use his foot to operate a pedal which struck the bass drum with a beater. Early bass drum pedals often included a second smaller beater which struck a small cymbal mounted low on the playing side of the bass drum.

Ragtime drumming is associated especially with the New Orleans style of music that soon developed into the *jazz* tradition. Most of these early drumset innovators were New Orleans musicians. Although ragtime drumming portrayed a sense of free improvisation compared to military drumming styles, the rhythms and the amount of improvisation used were probably more strict than in the 1920s jazz styles that followed (Hartigan, p.c. Feb. 1995). Compared to 1920s jazz, ragtime drumming used tighter, simpler rhythms (such as the Charleston rhythm), with less of the loose and spontaneous feel characteristic of 1920s drumming. The instruments most important to the ragtime drummer were the snare drum and bass drum. The function of time keeping, achieved by playing a continuous ostinato timeline, was usually assigned to these two instruments. Other instruments which became a standard part of the drumset, such as the suspended cymbal, cowbell, and woodblock, were only used for accents and effects, not for steady time-keeping.

#### 1920s New Orleans/Chicago Era

By the 1920s, the New Orleans style of music known as jazz had developed an important offshoot in Chicago. As Brown states (277), "Since the majority of Chicago drummers were several years younger than their New Orleans counterparts and part of a still-evolving style, they were unrestricted in the development of their individual playing, not having to maintain the concepts and traditions of New Orleans jazz drumming techniques." However, Roy Hartigan maintains that New Orleans jazz was still very much evolving in the 1920s, equally vital as the Chicago style, and that Chicago drummers used all of the techniques used by New Orleans drummers, the differences between the styles being rather vague.

According to Brown, the most significant difference between the Chicago and New Orleans drumming styles was in the use of the suspended cymbal (290). He maintains that Chicago drummers were the first to play steady timelines on the cymbal, using one hand to

dampen the cymbal, and one stick to play steady rhythms that might last an entire chorus of a song. This cymbal style, however, involved constantly choked sounds, preventing the sense of connected legato metallophonic time-flow later to become characteristic of jazz drumming. Regardless of its origins, the concept of keeping time on the cymbal as opposed to the snare drum, cowbell, or woodblock, was an important step to the development of bebop drumming in the 1940s, when the suspended "ride" cymbal became the center of the rhythmic flow. One consistent difference between Chicago and New Orleans drummers in the 1920s was the manner in which the cymbal was used to end a piece. New Orleans players tended to play a short, choked cymbal crash after the last note of the song had been played by the ensemble, whereas Chicago players tended to end pieces with a sustained cymbal crash on the last note of the song.

The drumset at this time normally consisted of a snare drum, bass drum, suspended cymbal, cowbell, woodblock, and Chinese tom-tom. Ostinato rhythmic patterns were most often kept on the snare drum, using series of rolls, ruffs, and other rudiments. Sometimes the cowbell, woodblock, or choked cymbal were used to keep a steady timeline. During this era, another important invention increased the ability of drummers to play several instruments simultaneously, one which allowed drummers to use the foot to close two cymbals together. Though earlier foot cymbal devices existed, the foot cymbal began gaining popularity after the 1926 appearance of the "low sock cymbal pedal," or more commonly, "low boy" (Brown 405), and soon after, the "high hat," which became quickly a standard part of the drumset, and remains so today. The high hat pedal not only allowed the drummer to close two cymbals together with the foot, but held them at a level of about three feet off the ground, allowing the cymbals to also be easily accessible with the hands. It is stated by royal hartigan that the great swing drummer "Papa Joe" Jones



was the inventor of the high-hat, using a rod to raise a low boy pedal ("Papa Joe" Jones p.c. to royal hartigan 28 June, 1980; hartigan p.c. to author 1 Feb., 1994).


The reason that it is difficult to define specific stylistic differences between the 1920s Chicago and New Orleans drummers, is that throughout the decade, recording and touring had allowed constant cross-exposure to occur between both styles of playing. Chicago drummers continued to be influenced by the New Orleans players, and the New Orleans players assimilated techniques being used in Chicago. As the decade progressed, a mixed style began to crystallize combining both northern and southern innovations (Brown 246). A few of the great early jazz drummers include Buddy Gilmore, Tony Sbarbaro, Louis Cottrell, Paul Barbarin, Abby Foster, Andrew Hilaire, Kaiser Marshall, Warren "Baby" Dodds, and "Zutty" Singleton.

#### 1930s Swing Era

The 1930s was the era of the big bands, and the need to accompany large ensembles and intricate arrangements significantly changed the role of the jazz drummer. By this time, the drumset had come to resemble its present form, including a ride cymbal, high-hat cymbals, and tunable tom-toms (refer to Plate 3). Some big band drummers enlarged their sets to orchestral proportions in this era, adding chimes, bells, timpani, temple blocks, and numerous sound effect accessories. Sonny Greer, Duke Ellington's drummer for 30 years, was especially known for this. Chick Webb, one of the most original and masterful drummers of the 30s, was also known for his large array of percussion instruments. Webb was one of the first great drumset soloists, and was a pivotal figure in defining a big band style of drumming in the 1930s distinct from small ensemble playing.

Another master who significantly changed jazz drumming in this decade was Jonathan Samuel "Papa Joe" Jones, Count Basie's longtime drummer. As Martin Williams writes in The Jazz Tradition, Jones

gave jazz drumming a different role in the music. He pedaled his bass drum more quietly and he moved his hands away from his snare drum to keep his basic rhythm on his double, high-hat cymbal. Unlike some of his imitators, he achieved a momentum, a kind of discreet urgency in his cymbal sound by barely opening the high-hat as he struck it. All of which is to say that Jo Jones discovered he could play the flow of the rhythm and not its demarcation. And he perceived that the rhythmic lead was passing to the bass, which he could complement with his cymbals (qtd. in Brown 444).

The basic pattern that Jones played on the high-hat (  ) became the standard for jazz drumming. This rhythm was later referred to as the "jazz ride cymbal pattern," so called because it was transferred (at first by Jones, and later standardized by Kenny Clarke) to the ride cymbal. Each beat in the measure was accented, instead of only two and four (in 4/4 time), as was the previous norm. Another of Jones' important innovations was to begin to give the bass drum a new function, not as an ostinato time keeper, but as a distinct independent voice for accenting. These innovations directly influenced the 1940s bebop style of drumming which followed. A few other great drummers of the swing era include Cozy Cole, Sid Catlett, Dave Tough, and Gene Krupa.

#### 1940s Bebop Era

Bebop drumming, like the music it accompanied, was an antithesis to the clichés of previous styles. Brown mentions three primary ways in which bebop drumming differed from previous styles. The first was the consistent use of the ride cymbal to create a legato time line. The Chicago drummers who had played their suspended cymbals at length had used one stick to strike the cymbal, and one hand to mute it, creating dry, choked sounds, except for occasional crashes. The bebop drummers, however, let their ride cymbals ring, creating a legato, high-pitched flowing time line, which fit well with the other primary time keeping force in the bebop ensemble, the *walking bass* line, wherein the bassist plays a continuous flow of deep pulses, usually in quarter-notes. The second difference was the gradual removal of the bass drum from its time keeping responsibility (taken over by the bass) and its subsequent use as an independent voice, leading to the third difference, the

evolution of coordinated independence, the ability to play several different rhythms simultaneously (Brown 463). The drummer credited for developing these latter two techniques into an artform was Kenny Clarke.

Thought of as the founder of bebop drumming, Clarke was the first to consistently place his time-keeping on the ride cymbal, and use his bass and snare drums independently to create off-beat accents, although some drummers, such as Chick Webb, had foreshadowed this independence as early as the 1920s. It is likely that the very fast tempos which began to develop with bebop are the reason that it was no longer practical or musical to keep all four beats with the foot on the bass drum. In addition to moving the time-line to the ride cymbal, Clarke was also probably the first to consistently play his high-hat on two and four (in 4/4 time). This ride cymbal/high-hat combination is what became and remains the standard for a great part of jazz drumming. This transference of a time expression from membranous drums or woodblocks to ringing metal instruments (cymbals and high-hats) signaled a return to the West African timbral assignment of timelines to a metal bell.

#### Post-Bop Directions

Technical and musical virtuosity continued to expand through the bebop era of the 40s and the "cool jazz" and "hard bop" styles of the 50s. Max Roach (the other "founding father" of bebop drumming) and "Philly" Joe Jones were two important drummers who developed a melodic style of drumset soloing which related to the melody and song form. Other important drummers of this period include Roy Hanes, Art Blakey, Jimmy Cobb, and Art Taylor. The next group of great jazz drummers, extending through the 1960s, includes Elvin Jones, Edward Blackwell, Billy Higgins, Dannie Richmond, and Tony Williams, who again brought drumset virtuosity to new heights. This included extending coordinated independence to all four limbs, creating a more elastic sense of time,

developing simultaneous layers of time expression, exploring the timbral resources of the drumset, and giving it an equal, if not central role in ensemble playing (hartigan p.c. 4 April, 1995).

By the late 60s/early 70s, jazz styles had fragmented into several genres. One was termed "free jazz," in which there was an abstract sense of time, and the music expressed pure emotional release or abstract ideas, such as underlying political and social protest. Drummers in this style include Rashied Ali, Andrew Cyrille, Sonny Murray, and Beaver Harris. Another was a Latin-jazz direction, whose roots trace to the 1940s with Dizzy Gillespie and Charlie Parker's associations with trumpeter Mario Bauza and conguero Chano Pozo. The merging of Latin music with jazz has been responsible for the steady development of drumset styles using coordinated independence to reproduce the multiple layers of Latin rhythms. Drummers in this style include Ignacio Berroa, Steve Berrios, Dom Um Romeo, and Airto Moreira, in addition to percussionist/Latin jazz bandleaders such as Tito Puente, Mongo Santamaria, Pancho Sanchez, and Jerry Gonzales. One other direction jazz took in the late 60s and 70s was a fusion of jazz and rock styles. Drummers in this style include Tony Williams, Jack DeJohnette, Billy Cobham, Peter Erskine, and Steve Gadd.

The most recent development in drumset playing, and the one that brings this chapter full circle to the focus of this study, is the adaptation of other world percussion traditions (besides those of Latin America) to the drumset. This process is still in its formative stages, and I know only of a few drummers that have pursued it with sufficient knowledge and integrity. The most significant contribution I have seen is that of royal hartigan in his 1986 dissertation, Blood Drum Spirit, in which traditional rhythms of West Africa, Central Java, South India, and Native America are adapted to the drumset in the African-American tradition. There have been a few African-American jazz drummers who have knowledge

of traditional African drumming and convey it in their playing styles, such as the late Edward Blackwell, and Don Moye of the Art Ensemble of Chicago. Trilok Gurtu is an Indian percussionist who has developed a very convincing style of Indian rhythm and jazz on a modified drumset. As I am completing this work, I know of a few other graduate students in addition to myself who are doing research in world drumming styles on the drumset. It is clearly a direction that has many possibilities remaining, and many contributors of whom I am not aware.

## **CHAPTER 6**

### **METHODOLOGY FOR ADAPTATIONS TO THE DRUMSET**

The methodology used in this study consists of analysis of several common taals, taking each in turn, exploring possibilities for adaptation to the drumset using various approaches and considering different idiomatic contexts. This begins by defining the most essential characteristics of each taal, such as avartan length, vibhag structure, and theka. After discussing adaptation possibilities for the basic parent composition and its variations, one composition is chosen for in-depth study, which is adapted to the drumset in different ways, setting it against pre-established adaptive frameworks. In the more literal interpretations, the characteristics not only of the compositions, but the essence of the taal itself (manifested in structure and feeling), will be maintained in the drumset patterns.

The strictness of this approach breaks down in stages as the interpretations become freer. The tabla compositions in this case are used simply as vehicles of inspiration to develop new types of drumset patterns that would not have been realized without the Indian rhythmic catalyst, relating them directly (even if the musical context in which it is used does not) to Hindustani music. All the drumset patterns derive from one of the following frameworks, each of which defines different interpretive parameters for adaptation of the original composition.

It should be noted that the methods used for drumset adaptation of tabla compositions in this study make no attempt at being comprehensive or restrictive. The methods are designed to be open to the interpretation of the individual, and do not disclude other possibilities. Similarly, the compositions used here are meant only as examples to show the application of the methodologies, and are not meant to represent any portion of the tabla repertoire. During my stay in India, I was given well over a hundred compositions,

and my guru knew thousands. The adaptive methods developed in this study may be applied to any composition and to any taal.

The drumset patterns shown in this study are simply suggestions for interpretation of a few tabla compositions, and the purpose of the study encourages other interpretations. This does not imply that any drummer can use tabla compositions on the drumset in any manner he or she pleases. The most important attribute the drummer must have is knowledge of the tabla tradition. However, enough information is given in this study for even players with little or no experience studying tabla to use the patterns presented here, and derive their own interpretations from these. For a drummer who has experience studying tabla, the interpretive frameworks presented here can be a starting point for adaptations of other compositions, and for the development of new adaptive methods.

For this study, I have chosen compositions in five common taals to be adapted to the drumset: *teentaal*, *roopak*, *jhaptaal*, *kaharwa*, and *dadra*. The first three of these, *teentaal*, *roopak*, and *jhaptaal*, are "classical" taals, used in Hindustani art music. The latter two, *kaharwa* and *dadra*, are the most common popular and folk-oriented taals. Each taal is examined in turn before continuing to the next. First, adaptations of the basic pattern (*theka*), and its variations (*prakar*) are discussed. For each of the classical taals, one representative composition is then chosen and set against each of at least the first three adaptive frameworks. I consistently chose *kayda* compositions in these analyses, for two reasons. Firstly, *kaydas* tend to display a consistency in rhythmic feel that is beneficial to establishing sufficient repetition to constitute a "groove" on the drumset that can be used in a musical context with an ensemble. Secondly, *kaydas* allow for variations, called *paltas*, which are also adapted to the drumset to show how a composition can be varied and improvised upon.

The kayda analyses for each taal are followed by a few other compositions. This may include any composition placed into any chosen framework, but emphasizes fixed-form compositions such as *tukra* and *gat*, which are used on the drumset in more of a soloistic context, to contrast with the more accompanying nature of the kayda adaptations. After exploring patterns in teentaal, roopak, and jhaptaal, a few additional adaptations are given for the folk taals kaharwa and dadra, and some of their variations. Finally, I will discuss the use of *tihais* on the drumset.

The majority of the compositions utilized in this study were taught to me by Sudhir Kumar Verma between November 1990 and April 1991, in Lucknow, India. Additional compositions were taught to me by Ashwin Batish between January 1993 and May 1995 in Santa Cruz, California.

The adaptations used in this study have been written for a typical jazz drumset, consisting of a snare drum, a bass drum (played with a foot pedal), a tom-tom mounted on the bass drum, a larger floor tom, high-hat cymbals (operated by a foot pedal), a ride cymbal, and a crash cymbal (refer to Plate 3). A notational key for the drumset patterns is given in Appendix A.

### Interpretive Frameworks for the Adaptation of Tabla Compositions to the Drumset

#### 1. Specific Timbre-to-Bol Assignment

Of the methods used in this study for transferring tabla rhythms to the drumset, this is the most literal, and least freely interpretive. For this reason, I found that it had the greatest limitations in performance contexts. Within this framework, each bol (stroke/sound) that can be produced on the tabla is assigned to a single timbre (snare drum, bass drum, cymbal, etc.) on the drumset. In this way, consistency and accuracy is maintained in performing the rhythms, and it is also determined which timbres of the drumset most closely resemble the bols of the tabla. For example, the bol *Ge*, the open



sound of the lower-pitched dagga drum, could correspond to the bass drum or floor tom, and the high-pitched open *Na* and *Tin* sounds to an open cymbal or the snare drum with the snares off. The tight, closed sounds of *Ti*, *Te*, and *Ke* could be replicated on a closed high-hat, with rim shots and rim clicks on the snare drum, or with mute strokes when using a hand technique (see method 5).

This process is certainly logical; however, in practice, I found that the resulting drumset patterns were not convincing, failing to establish a sufficient timeline, or the consistent feel or "groove" generally present in drumset patterns. Although the integrity of the tabla rhythms may have been maintained, the integrity of the African-American tradition on the drumset was not, and since I am striving for an equal synthesis, I found this framework often untenable in performance practice. The most useful developments that came out of using this method were to use the technique for independence exercises in practice, and to use the concept of associating the timbre of certain bols with certain parts of the drumset in other performance frameworks. The latter concept will be used often in this study, especially for maintaining *khula-bandh* structure, although in freer interpretations it is not mandatory for the drumset patterns to maintain literal timbral similarity to their parent tabla compositions.

## 2. Free Association

This framework of performing tabla compositions on the drumset is the first that occurred to me. Using free association, only the rhythmic pattern of the tabla composition remains intact in its original state, and the bols are placed at will freely around the drumset. There need not be an intended attempt to relate the timbre or function of a particular bol in the composition to a specific timbre on the drumset--the drummer may use any part of the drumset to represent any bol, and may represent the same bol in a

different way every time. Consequently, this framework has the advantage of enabling the drummer to render tabla rhythms using existing styles of drumset phrasing. Tabla compositions can be adapted in this manner into any existing drumset style, such as jazz, rock, or Latin music, depending on the sonorities and phrases chosen. However, in order to fully express these different styles, something from the original tabla pattern needs to be added, taken away, or both, a subject taken up in the next method.

One limitation of this framework is that for compositions that are "full," in that there is a bol on every subdivision of the beat, free association only implies a constant eighth-note, triplet, sixteenth-note, etc. pattern. This is hardly inspirational for the drummer, and playing such a pattern can sound busy to the point of being unmusical. The tradition of jazz drumming reveals a tendency for letting the instrument breathe, as a wind instrument or vocalist would, and good jazz drummers know that space is as important as sound. The free association method therefore works best for compositions with pauses between the syllables, and/or some degree of rhythmic variety within the pattern.

However, since many tabla compositions display the attribute of having an unchanging rhythmic pattern throughout, I found it necessary to find ways of dealing with such patterns in the drumset adaptations, besides the method of taking elements out of the composition, discussed in the next framework. The key is to look at what makes these "full" compositions work on the tabla. There are two reasons the tabla is able to portray patterns with bols placed equally on every subdivision of the beat without sounding monotonous or too busy. The first is the great variety of timbres available to the drum, and the second, the use of accentuation and dynamics. These attributes allow the tabla to give shape to a seemingly shapeless pattern. In regard to both these characteristics, the drumset has as many possibilities as the tabla. The drumset, comprised of several percussion instruments, inherently has a great variety of timbre (besides the numerous

timbres that can be derived from any one of these instruments). In addition, the direct physical playing technique of the drumset allows for a greater dynamic range than possibly any other instrument (although in most of the music the drumset is used for, this range is not exploited). Therefore, in adapting "full" patterns, these traits will be used to give shape to the pattern. Most of the dynamic inflection is not notated in the drumset patterns, and must be interpreted by the player--this is where knowledge of tabla is helpful, to know which sounds are more prominent than others, both in general, and in relation to a specific composition.

### 3. Free Interpretation

Of the frameworks conceived for this study, free interpretation is the one which comes closest to allowing the essences of both the Hindustani tabla compositions and the African-American drumset tradition to merge in a musical unity. The essential elements of the tabla rhythms are usually kept intact; however, the drummer may interpret the compositions, making them more dense, or more commonly, less dense ("skeletonizing"), as well as using timbres and feels which place the rhythms into different musical contexts. This interpretation can happen at any level, from adhering rather strictly to the original rhythm, to only implying the original in the vaguest sense. Important elements that must be considered in interpretation include whether to relay the basic *vibhag* structure of the taal, whether to imply a *khula-bandh* relationship if one was originally present, and whether to play all the bols of the composition, or to focus on certain ones.

The technique of playing only some of the bols in a composition I will refer to as "skeletonizing" or "essentializing." This is another way to deal with constant pulse rhythms, as described above, in a way that leaves more space in the music for other musicians in the ensemble. It was royal hartigan who first brought the importance of

skeletonizing to my attention, as he had encountered similar problems adapting other world drumming traditions to the drumset, especially the South Indian Karnatak rhythmic vocable tradition known as *solkattu*. In skeletonizing a tabla composition, the first step is to determine which bols are most essential in defining the composition. Normally, this will include at least those which outline the vibhag structure of the taal. In the freest type of interpretation, however, this need not be adhered to; in fact, one might purposely play the bols of the composition that would be considered the *least* important, thereby creating a sort of negative image of the compositional structure. Most of the drumset patterns in this study using the free interpretation method remain rather busy--skeletonizing has only been used to a certain extent. The patterns given here were created apart from a musical ensemble; when playing with an ensemble, if I have a tabla composition in mind, it is often skeletonized more freely.

The other most important consideration when adapting tabla rhythms within a free interpretation framework is to have a sense of the musical style played by the ensemble in which the tabla rhythms are being used. Depending on what the drummer wishes to express, different styles can be suggested by using certain sonorities for the different parts of the rhythm, and sometimes by adding additional rhythms to those of the tabla composition which imply a certain style. The drumset examples which are more skeletonized in this study tend to be the ones that have independent rhythms added, for example, the jazz ride cymbal pattern.

#### 4. Separating Patterns for Dahina and Bayan

In this framework, a slight distinction is made between the *spoken* pattern of the composition, and the sound of the composition in and of itself. The composition is interpreted as two distinct rhythmic patterns, one being played by the right hand drum

(dahina) and one by the left hand drum (bayan). Though the spoken pattern implies all of these sounds, two rhythmic lines in counterpoint cannot actually be spoken by a single person. Since the drumset performer has use of two hands plus two feet for creating rhythmic lines, the drumset is ideal for this kind of independence, and both rhythmic lines in the tabla pattern can easily be adapted.

Although this technique could be expressed many different ways, using different combinations of the hands and feet to express one or both patterns, the most common method I have used is to split the rhythm of the bayan between the feet, and the rhythm of the dahina between the hands. Creating patterns using this method primarily requires a shift in thinking, from the essentially monophonic representation of spoken syllables, to the polyphonic execution of the rhythm as it comes from the tabla. In addition, this method creates as a by-product a sub-technique, wherein only one of the two patterns is considered in isolation in a freely interpretive manner. Many of the bayan and dahina patterns are interesting enough themselves to warrant adaptation to the drumset, and such patterns naturally leave more space, already being skeletonized by the nature of the technique.

##### 5. Use of Hands on the Drumset

Since tabla are hand drums, I found it very useful at times to use tabla hand and finger strokes on the drumset itself. Most of the strokes used for tabla bols create sounds on the drumset which are reasonably related in sound and function to the same strokes on the tabla. The result is a very light, delicate feel on the drumset which still maintains a rhythmic drive, and can be very effective. This technique could be used in any light playing situation, such as a ballad or a light Afro-Latin feel. As a performer of Latin music, I also found it interesting to use tabla fingering techniques on congas and bongos,

creating different textures and colors on these instruments. Also, hand techniques used for the congas, such as open strokes, mute strokes, and slap strokes, work well on the drumset to portray tabla compositions. I am introducing this method as a concept only--no notated examples of this framework are given, for I feel it is impractical and unnecessary to devise a system of notation for using tabla finger strokes on the drumset.

#### 6. Taals as Open Time Cycles

Another concept is to treat taals as open time cycles, empty except for an implied vibhag structure, for use in an African-American jazz or cross-cultural musical setting. An increasing number of jazz musicians and composers are utilizing non-standard time signatures, and Hindustani rhythmic structures can provide a wealth of inspiration in this regard. From this, another concept can be derived, that of using more than one time cycle at the same time, either by distributing meters between players in the ensemble, or by using more than one meter to create a polyrhythmic structure on the drumset. Taals can also be used as isolated rhythmic phrases within any meter--that is, not two superimposed, consistent metric cycles, but one metric cycle within which a variety of phrases in any pulse groupings can be played. The notion of superimposing one time cycle over another is not unknown to Indian performance practice. Certain taals, such as jhaptaal and teentaal, can even be constructed so that tihais in one fit inside the another, as will later be shown. The idea of playing more than one time cycle simultaneously on the drumset came to me from royal hartigan's Blood Drum Spirit, wherein rhythmic lines in a certain meter are played with sticks or hands, while a pulse in a different meter is being kept with the feet. This concept applies very well to tabla rhythms, as they encompass a wide variety of meters.



This pattern is not very interesting, but then again, a master Indian musician would probably say the same of the unembellished theka played on tabla. The fact is, in performance, teentaal theka is rarely played in the exact, literal manner defined above; rather, subtle variations (*prakar*) are constantly employed. Example 7.3 shows a few interpretations of the theka using *prakar*.

### Example 7.3

#### *Teentaal theka prakar*

- a) Dha Dhin Dhin Dha Dha Dhin Dhin Dha  
Dha DheTe Tin DheTe - DheTe TiTe TaKe
- b) Dha Dhi Dhi Dha Dha GeNā TiGe Dha  
Dha TiTe Tin TaKe Tite Dhi Dhi DhaTi
- c) Dha KaKa TiTe KiTa Dhin DhiDhi DhaGe TiTeKiTa  
TāGe TiTaKiTa Dhin --KiTa Dhi--Kr DhiNā Dha--Dha --Dha-

#### Teentaal Theka Prakar

a.

b.

c.

\*\*\*\*\*



### Analysis of Teentaal Kayda

#### Example 7.4

##### *Teentaal Kayda*

Dha-TiRi KiTiTaKe DhaDha GeNā DhaTi GeNā TiNā KeNā  
Tā-TiRi KiTiTaKe TāTā KeNā DhaTi GeNā DhiNā GeNā

To reiterate chapter 4, kaydas are "themes" which are created to complement the structure and feeling of a taal (as defined by its theka), and also are constructed so that systematic variations (*paltas*) are easily conceivable. In developing paltas, the most important compositional characteristic is short phrase lengths, which can be rearranged to create variations. The kayda in example 7.4 clearly shows this trait. There are four basic short phrases that comprise this kayda: *Dha-TiRiKiTiTaKe*, *DhaDhaGeNā*, *DhaTiGeNā*, and *DhiNaGeNa*. The other phrases, *Tā-TiRiKiTiTaKe*, *TāTāKeNā*, and *TiNaKeNā*, are simply the closed (*bandh*) counterparts of the corresponding open (*khula*) phrases.

A kayda is always structured so that the first half begins open and ends closed, and the second half begins closed and ends open. Open phrases are defined as having resonant tones on the *bayan* (low-pitched left-hand drum), represented by the bols *Dha* and *Ge*. Conversely, closed phrases have non-resonant tones, or no strokes at all on the bayan, represented by the bols *Tin*, *Ke*, and *Tā*.

Paltas are fashioned by rearranging these short phrases, or parts of the phrases, or by otherwise making slight variations to the original composition. Khula-bandh structure is always maintained when constructing a palta.

In tabla solo performance, kayda always end with a *tihai* that fills one or more entire cycles of the taal. Like paltas, the *tihai* is also generally constructed using phrases from the kayda composition. For the purposes of this study, the paltas and *tihai* will not be

written out explicitly on the drumset for each interpretive framework, as this would prove rather cumbersome and redundant. Rather, one drumset interpretation will be chosen to show how paltas and tihais are constructed from the original pattern. Example 7.5 shows a few sample paltas and tihais for this kayda:

Example 7.5 *Teentaal kayda paltas and tihais*

*Palta 1*

DhaTiGeNā Dha-TiRiKiTiTaKe DhaDhaGeNā DhaTiGeNā  
Dha-TiRiKiTiTaKe DhaDhaGeNā DhaTiGeNā TiNaKeNā  
TāTiKeNa Tā-TiRiKiTiTaKe TāTāKeNa TāTiKeNā  
Dha-TiRiKiTiTaKe DhaDhaGeNā DhaTiGeNā DhiNāGeNā

*Palta 2*

DhaTiGeNā TiNāDhaTi GeNāDhaTi GeNāTiNā  
Dha-TiRiKiTiTaKe DhaDhaGeNā DhaTiGeNā TiNaKeNā  
TāTiKeNā TiNaTāTi KeNāTāTi KeNāTiNā  
Dha-TiRiKiTiTaKe DhaDhaGeNā DhaTiGeNā DhiNāGeNā

*Palta 3*

Dha-TiRiKiTiTaKe DhaDhaGeNā Dha-TiRiKiTiTaKe DhaDhaGeNā  
Dha-TiRiKiTiTaKe DhaDhaGeNā DhaTiGeNā TiNaKeNā  
Tā-TiRiKiTiTaKe TāTāKeNā Tā-TiRiKiTiTaKe TāTāKeNā  
Dha-TiRiKiTiTaKe DhaDhaGeNā DhaTiGeNā DhiNāGeNā

*Palta 4*

Dha-TiRiKiTiTaKe DhaDhaGeNā Dha-geNā DhaDhaGeNā  
Dha-TiRiKiTiTaKe DhaDhaGeNā DhaTiGeNā TiNaKeNā  
Ta-TiRiKiTiTaKe TaTaKeNā Ta-KeNā TāTāKeNā  
Dha-TiRiKiTiTaKe DhaDhaGeNā DhaTiGeNā DhiNāGeNā

*Tihai 1*

Dha-TiRiKiTiTaKe DhaDhaGeNā DhaTiGeNā TiNāKeNā  
Dha Kat Dha-TiRiKiTiTaKe DhaDhaGeNā  
DhaTiGeNā TiNāKeNā Dha Kat  
Dha-TiRiKiTiTaKe DhaDhaGeNā DhaTiGeNā TiNāKeNā

*Tihai 2*

Dha-TiRiKiTiTaKe DhaDhaGeNā DhaTiGeNā TiNāKeNā  
DhaDha Dha-DhiNā GeNāDha- DhaDha  
DhiNāGeNā DhaDha Dha Dha-TiRiKiTiTaKe  
DhaDhaGeNā DhaTiGeNā TiNāKeNā DhaDha  
Dha-DhiNā GeNāDha- DhaDha DhiNāGeNā  
Dhadha Dha Dha-TiRiKiTiTaKe DhaDhaGeNā  
DhaTiGeNā TiNāKeNā DhaDha Dha-DhiNā  
GeNāDha- DhaDha DhiNāGeNā DhaDha

*Drumset Adaptations*Method 1: Specific Timbre-to-Bol Assignment

The concept in method 1 is to correlate as closely as possible the tonal/timbral qualities of each tabla bol to a specific sound on the drumset. Although in freer interpretations, this concept may not be followed, most of the drumset patterns in this study will utilize sounds that attempt to imitate the tabla bols in a manner similar to the list of assignments above. The following is a description of the most basic tabla bols, and how they can correspond to the drumset.

The bols *Ge*, *Gi*, and *Ga* all define open, resonant tones on the low-pitched bayan. These bols will therefore normally correspond to the lower tones of the drumset--i.e., the bass drum and floor tom. In tabla playing, the open tones of the bayan are manipulated with pressure of the wrist, producing varied degrees of pitch and resonance. This aspect of the bayan can be assimilated on the drumset in several ways. First, the mallet beater of the bass drum pedal may be pressed into the bass drum head to produce a higher and less

resonant tone. Secondly, a stick, mallet, or the heel of the hand may be pressed into or slid across the floor tom head, producing an effect similar to the sound of an actual bayan. Finally, if a larger drumset is used, one which has more than one low pitched tom-tom or floor tom, the different drums may be used to assimilate the different tones of the bayan.

The closed, non-resonant sound of the bayan is *Ke* (*Ki*, *Ka*), which transfers to the drumset using any short, tight, non-pitched sound such as the floor tom rim or shell, rim clicks on the snare drum, or closing the high-hat with the foot.

The bols *Nā*, *Tā*, and *Tin* are the high-pitched overtones of the dahina, differing from each other slightly according to the point on the head which is struck. These sounds best correspond on the drumset to the high-pitched, ringing clarity of the cymbals, or possibly to the open tone of the snare drum with the snares off. The bol *Tun* is a lower-pitched tone on the dahina, produced by allowing the full open tone of the drum to sound, without resting the ring finger on the head to produce overtones. This sound most closely parallels the mounted tom-tom on the drumset.

The tight, closed bols of the dahina are *Ti* and *Te*, which can be represented on the drumset with sticks on a closed high-hat, on the snare drum with the snares on, or on the rims of the drums.

Combination strokes, such as *Dha*, *Dhin*, *Dhir*, and *Dhet* are treated just as they are on the tabla--the sounds on the drumset that represent each of the two individual strokes will be played together.

Drumset timbre to bol assignments for example 7.6 are as follows:

Dha: Bass drum and ride cymbal together

Ti/Ri/Ta: Snare drum (snare can be on or off)

Ki/Ke: Closed hi-hat played with the left hand

Ge: Bass drum

Nā/Tā: Ride cymbal

Tin (*TiNa* is the abbreviated form of *TinNa*): Bell of ride cymbal

Dhin (*DhiNa* is the abbreviated form of *DhinNa*): Bell of ride cymbal and bass drum together

### Example 7.6

#### Teentaal Kayda - Method 1



Dha-TiRi KiTiTaKe DhaDha GeNa DhaTi GeNa TiNa KeNa  
Ta-TiRi KiTiTaKe TaTa KeNa DhaTi GeNa DhiNa GeNa

#### Method 2: Free Association

Using the free association method, the rhythmic pattern of the kayda is kept intact in its original state; however, there are no fixed drumset timbre-to-bol assignments. Phrases that are more typical to drumset styles can thus be brought in and fitted to the rhythm of the tabla composition. Certain bols may still be represented in many cases by certain sonorities on the drumset. For example, the bol *Dha* represented on the drumset with the cymbal or high-hat and bass drum seems so organic and logical to me that it reoccurs in many of the patterns in this study. Similarly, if there is a *khula-bandh* relationship in the tabla composition, as there is in this and all kaydas, it will usually be represented by an appropriate change in timbres on the drumset. Thus, while the method remains open to placing any bol of the composition anywhere on the drumset, in practice some degree of

continuity will often be present between the tabla bols and their representations on the drumset.

In example 7.7 which follows, most of the drumset timbres remain consistent to a single corresponding tabla bol. *Dha* is represented by the accented ride cymbal and bass drum together, the non-resonant sounds of the dahina (*Ti*, *Ri*, and *Ta*) by the unaccented ride cymbal, the resonant sounds of the dahina (*Nā*, *Tin*, and *Tā*) by the bell of the ride cymbal, the non-resonant sound of the bayan (*Ke/Ki*) by the snare drum, and the resonant sound of the bayan by the floor tom. Although similar to the preceding pattern in method 1, this pattern differs firstly by choosing the resonant timbre of the ride cymbal to represent the non-resonant sound of the bols *Ti*, *Ri*, and *Ta*, and secondly by modifying the timbre-to-bol pairings in several places in order to allow the pattern to flow more smoothly on the drumset.

### Example 7.7

#### Teentaal Kayda - Method 2 (a)

Dha-TiRi KiTiTaKe DhaDha GeNā DhaTi GeNā TiNā KeNā  
Tā-TiRi KiTiTaKe TāTā KeNā DhaTi GeNā DhiNā GeNā

The free association of example 7.8 is another level removed from method 1. There is little attempt here to maintain specific timbre-to-bol relationships. The emphasis is on creating a natural drumset pattern (in this case in a funk style), while maintaining the rhythm of the original tabla composition. Although most of the sonorities in this pattern do not assimilate their tabla bol counterparts, the khula-bandh structure is still preserved,

represented by the presence of the bass drum on the first beat of measure 1, and the lack of the bass drum in the first beat of measure 3.

### Example 7.8

#### Teentaal Kayda - Method 2 (b)

Dha-TiRi KiTiTaKe DhaDha GeNā DhaTi GeNā TiNā KeNā  
Tā-TiRi KiTiTaKe TāTā KeNā DhaTi GeNā DhiNā GeNā

#### Method 3: Free Interpretation

Example 7.9, an abstracted jazz swing interpretation of the same kayda, is the first example of "skeletonizing" a pattern. Only select elements of the original composition have been kept, yet the feel of the original remains intact, as does the feel of a traditional swing rhythm. The most important element of the swing pattern is the ride cymbal rhythm shown (played with a "swung eighth-note" feel) with the high-hat cymbals closing on beats two and four. The snare drum and bass drum are traditionally improvised within this swing pattern, which is where the implication of the kayda can be inserted. For this particular interpretation, I chose to bring out the bols shown here in bold print:

**Dha-tiri** **Kititake** **Dhadha** **Gena** **Dhati** **Gena** **Tina** **Kena**  
**Ta-tiri** **Kititake** **Tata** **Kina** **Dhati** **Gena** **Dhina** **Gena**

The reasoning behind these choices is mostly aesthetic preference, but is influenced by the fact that teentaal usually has an on-the-beat feel, which has been preserved, and that an important trait of jazz, off-beat accenting, has been included in the second and tenth beats of the kayda (beats 3 and 4 in measures 1 and 5 of the drumset pattern). I found it a

beneficial exercise to play compositions like this in a certain feel for an extended period of time, skeletonizing it in different ways, and flushing out as many different patterns as possible.

### Example 7.9

#### Teentaal Kayda - Method 3 (a)

Dha-TiRi KiTiTaKe DhaDha GeNā DhaTi GeNā TiNā KeNā  
Tā-TiRi KiTiTaKe TāTā KeNā DhaTi GeNā DhiNā GeNā

Example 7.10 is basically a 3-2 mambo in the Afro-Cuban tradition (3-2 referring to the direction of clave:  $\text{♩} \text{ } \text{♩} \text{ } \text{♩} \text{ } \text{♩} \text{ } \text{♩} \text{ } \text{♩} \text{ } \text{♩} \text{ } \text{♩}$ ) adapted to the drumset. I found it to be highly complementary to this teentaal kayda, containing much rhythmic similarity, especially in the sam and khali vibhags (bars 1,2; 5,6). Several factors further strengthen the similarity. First, the high-hat on beats 1 and 3 of every bar bring out the on-the-beat feel inherent to teentaal--since one bar of the written 4/4 time equals two matras (beats) of teentaal, beats 1 and 3 are equivalent to the beginning of each matra. Secondly, the muted staccato notes in bars 1 and 5 imply the tight, closed bols of the phrase *KiTiTaKe*. Thirdly, the bass drum pattern is constructed to emphasize the bol *Dha* (reinforcing the on-beat feel) and maintain the khula-bandh structure.



## Example 7.10

## Teentaal - Method 3 (b)

Dha-TiRi KiTiTaKe DhaDha GeNā DhaTi GeNā TiNā KeNā  
Tā-TiRi KiTiTaKe TāTā KeNā DhaTi GeNā DhiNā GeNā

Example 7.11 is in a reggae style, and follows almost the exact rhythmic pattern of the teentaal kayda. Examples 7.12-7.14 show how palta variations of a kayda and a tihai can be applied to a drum set pattern. The bass drum serves a dual function in example 7.11--to imply khula-bandh structure in bars 1 and 5, and to help define the reggae feel on beat 3 of the other bars. The high-hat on beats 1 and 3 of every bar uphold the on-beat feel of teentaal.

## Example 7.11

## Teentaal - Method 3 (c)

Dha-TiRi KiTiTaKe DhaDha GeNā DhaTi GeNā TiNā KeNā  
Tā-TiRi KiTiTaKe TāTā KeNā DhaTi GeNā DhiNā GeNā

## Example 7.12

## Palta 1

DhaTiGeNā Dha-TiRiKiTiTaKe DhaDhaGeNā DhaTiGeNā  
Dha-TiRiKiTiTaKe DhaDhaGeNā DhaTiGeNā TiNāKeNā  
TāTiKeNā Tā-TiRiKiTiTaKe TāTāKeNā TāTiKeNā  
Dha-TiRiKiTiTaKe DhaDhaGeNā DhaTiGeNā DhiNāGeNā

## Example 7.13

## Palta 2

DhaTiGeNā TiNāDhaTi GeNāDhaTi GeNāTiNa  
Dha-TiRiKiTiTaKe DhaDhaGeNā DhaTiGeNā TiNāKeNā  
TāTiKeNā TiNāTāTi KeNāTāTi KeNāTiNā  
Dha-TiRiKiTiTaKe DhaDhaGeNā DhaTiGeNā DhiNāGeNā

## Example 14

## Tihai

Dha-TiRiKiTiTaKe DhaDhaGeNā DhaTiGeNā TiNāKeNā  
Dha Kat Dha-TiRiKiTiTaKe DhaDhaGeNā  
DhaTiGeNā TiNāKeNā Dha Kat  
Dha-TiRiKiTiTaKe DhaDhaGeNā DhaTiGeNā TiNāKeNā

### Method 4: Separating Patterns for Dahina and Bayan

Using method 4, the literal rhythmic patterns of the dahina and bayan are treated separately, as opposed to following the spoken/written composition. Example 7.15 was derived by keeping the dahina rhythm on the right hand, and splitting the bayan rhythm between the feet. The pattern is somewhat skeletal, and the left hand remains free to improvise within it.

#### Example 7.15

##### Teentaal Kayda- Method 4



Example 7.17 is a tukra in teentaal. A tukra is a short soloistic composition ending with a tihai. There is one technique used in this drumset adaptation that needs pointing out. In this and other drumset patterns that follow, *rim shots* are used on the snare drum (designated by R.S. above the note). This is a technique whereby a loud, ringing tone is obtained by striking the head and the rim of the snare drum with the stick simultaneously. However, example 7.17 uses a different type of rim shot as well. The first rim shot *only* (second beat of the first measure) is played by pressing the tip of the left stick into the head, and striking the left stick with the right stick. The other rim shots are played as first described.

### Example 7.17

Teentaal Tukra      R.S.      R.S.      R.S.

DhaGeTiTe TāKeTiTe KraDha-Kra Dha-KiTiTaKe  
TunTun NāNāNāNā KaTiTeDha -Ka-Ti  
Dha-KaTi Dha-KaTi TeDha-Ka -TiDha-  
KaTiDha- KaTiDha- -Ka-Ti Dha-KaTi Dha  
X

## Roopak Taal

### Example 7.18

#### *Roopak Theka*

<u>Tin</u>	<u>Tin</u>	<u>Nā</u>	<u>Dhi</u>	<u>Nā</u>	<u>Dhi</u>	<u>Nā</u>
O			2		3	

Roopak is a short taal cycle of seven beats, shown in example 7.18. The unusual characteristic of roopak, separating it from every other taal, is that there is no sam vibhag. In effect, for roopak, the khali ("off" side of the composition) becomes the sam. It is comprised of a khali vibhag of three matras, followed by two tali vibhags of two matras each. In playing roopak taal, the lack of a sam vibhag is manifested in the use of khali-type bols (*Tin* and *Na*) at the beginning of the composition, whereas they are usually found in the middle section of a composition. In my study and research of tabla, I have found that every other taal (except for *pashto taal*, which is very similar to roopak) begins with the bol *Dha* or *Dhin/Dhi*. For this reason, roopak is an interesting taal to play and listen to, because at the sam of the cycle, where we expect a deep tone from the bayan, we hear the light sound of *Tin*. This could even confuse a listener (at least a non-Indian one) into feeling the *fourth* matra as the beginning of the cycle.

However, with non-theka compositions in roopak, this tonality structure is not necessarily followed. Theme-and-variation type compositions, such as kayda and rela, rely on a khula-bandh relationship, requiring the first half to begin with bayan-accompanied sounds. For these types of compositions, the bols *Dha* and *Dhin* are used at the beginning of the cycle, and since the second half requires the absence of these sonorities (and because roopak is a relatively short cycle), two avartans (cycle lengths) are

used to complete the composition. Closed sounds (without resonant bayan strokes) are used to begin the second cycle, thereby maintaining the khula-bandh structure.

Example 7.19 shows several interpretations of the roopak theka, followed by example 7.20, which gives a few prakars.

### Example 7.19

#### Roopak Theka

a.

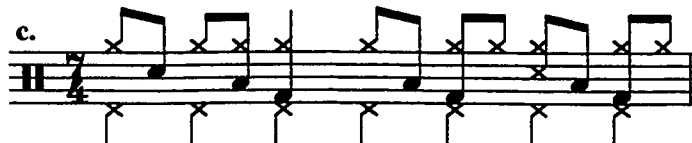
b.

c.

## Example 7.20

*Roopak theka prakar*

- a. Tin TiNā TiRiKiTa Dhi NāNā Dhi NāNā  
 b. Tin TiNā TiTe DhiNā DhaGe DhiNā GiNā  
 c. NāDhin NāDhin Dhinā NāDhin Dhinā NaDhin Dhinā

**Roopak Theka Prakar**

\*\*\*\*\*

Analysis of Roopak Kayda

Drumset interpretations using methods 1 and 2 will be derived from kayda 1 shown in example 7.21 below. Interpretations for method 3, in which the palta and tihai are included, are taken from an elaboration on this kayda, in which it is combined with another roopak kayda (shown in example 7.21 as kayda 2). The elaborated kayda (shown as kayda 1+2), with examples of paltas and a tihai, is shown in example 7.22.

## Example 7.21

*Roopak Kayda 1*

DhaGe DhiNā GiNā DhaTi DhaGe TiNā KiNā  
TāKe TiNā KiNā DhaTi DhaGe DhiNā GiNā

*Roopak Kayda 2*

DhaTiRi KiTiTaKe TiRiKiTe DhaTi DhaGe TiNā KiNā  
TāTiRi KiTiTaKe TiRiKiTe DhaTi DhaGe DhiNā GiNā

## Example 7.22

*Kayda 1+2*

DhaGe DhiNā GiNā DhaTi DhaGe DhaTi DhaGe DhiNā GiNā  
DhaTiRi KiTiTaKe TiRiKiTe DhaTi DhaGe TiNā KiNā  
TāKe TiNā KiNā TāTi TāKe TiNā KiNā  
DhaTiRi KiTiTaKe TiRiKiTe DhaTi DhaGe DhiNā GiNā

*Palta 1*

Dha-TiRiKiTiTaKe TiRiKiTeDha-TiRi KiTiTaKeTiRiKiTe  
DhaTiDhaGe DhiNāGiNā DhaTiDhaGe TiNāKiNā  
Tā-TiRiKiTiTaKe TiRiKiTeTā-TiRi KiTiTaKeTiRiKiTe  
DhaTiDhaGe DhiNāGiNā DhaTiDhaGe DhiNāGiNā

*Palta 2*

DhaTiDhaGe DhiNāDhaTi DhaGeDhiNā  
Dha---Dha-TiRi KiTiTaKeTiRiKiTe DhaTiDhaGe TiNāKiNā  
TāTiTaKe TiNāTāTi TāKeTiNā  
Dha---Dha-TiRi KiTiTaKeTiRiKiTe DhaTiDhaGe DhiNāGiNā

*Tihai*

Dha-TiRiKiTiTaKe TiRiKiTeDha-Ge- DhiNāGiNā Dha Tin 3X



## *Drumset Adaptations*

### Method 1: Specific Timbre-to-Bol Assignment

Drumset timbre to bol assignments for example 7.23 are as follows:

Tin: Ride cymbal  
 Nā/Tā: Bell of ride cymbal  
 Ge/Gi: Bass drum  
 Ke/Ki: High hat with foot  
 Dha: Bell of ride cymbal and bass drum together  
 Dhi: Ride cymbal and bass drum together  
 Ti: Snare drum

### Example 7.23

#### Roopak Kayda 1 - Method 1



DhaGe DhiNā GiNā DhaTi DhaGe TiNā KiNā  
TāKe TiNā KiNā DhaTi DhaGe DhiNā GiNā

### Method 2: Free Association

In example 7.24, I decided to keep the cymbal pattern from the literal interpretation in method 1, because it has a certain flow that sounds natural to the drumset. The pattern in method 1 also happened to be constructed so that the rhythm of the dahina is played by the hands, and the rhythm of the bayan is played by the feet, making it also an example of method 4. The cymbal pattern, representing the rhythm of the dahina, is a fine example of a dahina or bayan pattern which is strong enough to stand on its own, a concept discussed under method 4 in the preceding adaptive frameworks. I found a multitude of ideas using this rhythm as a basis when playing in 7/4 time.

The representation of the bayan in this example, however, is quite different from method 1. This example attempts to assimilate the different pitch levels of the bayan used to play this kayda. This is accomplished through the use of three drumset timbres to represent the open strokes of the bayan. From lowest to highest pitched, these are the bass drum, floor tom, and pressed mute stroke on the floor tom.

### Example 7.24

#### Roopak Kayda 1 - Method 2



DhaGe DhiNā GiNā DhaTi DhaGe TiNā KiNā  
TāKe TiNā KiNā DhaTi DhaGe DhiNā GiNā

#### Method 3: Free Interpretation

Example 7.25 shows this kayda in an abstracted funk feel, followed by paltas and a tihai in examples 7.26-7.28. Although the rhythms of the drumset patterns are identical to those of the tabla compositions, the feel is skeletonized. This is due to the unimposing sounds of the high-hat with foot and closed high-hat with hand strokes, which are subordinate to the strong sounds of the open high-hat with the bass drum or snare drum. The sixteenth-note sections of the pattern are also subordinate. Although there is no attempt in these patterns for the drumset timbres to assimilate the sounds of the tabla bols, the bass drum is still used to retain the khula-bandh structure.

## Example 7.25

## Roopak Kayda 1 + 2 - Method 3

DhaGe DhiNā GiNa DhaTi DhaGe DhiNā GiNā  
DhaTiRi KiTiTaKe TiRiKiTe DhaTi DhaGe TiNā KiNā  
TāKe TiNā KiNā TāTi TāKe TiNā KiNā  
DhaTiRi KiTiTaKe TiRiKiTe DhaTi DhaGe DhiNā GiNā

## Example 7.26

## Palta 1

Dha-TiRiKiTiTaKe TiRiKiTeDha-TiRi KiTiTaKeTiRiKiTe  
DhaTiDhaGe DhiNāGiNā DhaTiDhaGe TiNāKiNā  
Ta-TiRiKiTiTaKe TiRiKiTeTa-TiRi KiTiTaKeTiRiKiTe  
DhaTiDhaGe DhiNāGiNā DhaTiDhaGe DhiNāGiNā

## Example 7.27

## Palta 2

DhaTiDhaGe DhiNāDhaTi DhaGeDhiNā  
Dha---Dha-TiRi KiTiTaKeTiRiKiTe DhaTiDhaGe TiNāKiNā  
TāTiTāKe TiNāTāTi TāKeTiNā  
Dha---Dha-TiRi KiTiTaKeTiRiKiTe DhaTiDhaGe DhiNāGiNā

## Example 7.28

Tihai

Dha-TiRiKiTiTaKe TiRiKiTeDha-Ge- DhiNāGiNā Dha Tin 3X

\*\*\*\*\*

Additional Patterns

In the methodology of framework 6 (taals as open time cycles), the possibility of playing more than one meter simultaneously on the drumset was discussed. In the two patterns shown in example 7.29, the basic structure of roopak taal is defined with the hands on the drums, while a shorter meter is maintained with the feet. In the first pattern, the repeated seven bols of roopak are divided into sixteenth notes, while the bass drum and high-hat play in 3/4 time. The second pattern has the roopak structure divided into eighth-note triplets, while the bass drum and high-hat play in 4/4 time. Both examples span seven measures before the patterns comes out on the first beat of the given time signature.

These patterns are only two of numerous ways that metric cycles can be placed against one another. For instance, meters need not be divided so that the hands are playing one, and the feet the other. A meter could be played by one or any combination of the four limbs. Theoretically, four meters could be played simultaneously by one drummer. However, even staying with the technique used in these examples, there are a multitude of possibilities. Three factors are involved using this technique: the length of the meter being cycled (seven pulses in this case), the length of the underlying meter (three and four beats, respectively), and the way that the cycled meter is grouped in relation to the

underlying meter (four pulses and three pulses, respectively). Any of these factors can be changed.

For example, the third factor, the grouping of the first meter in relation to the underlying meter, might not be four or three, but perhaps five, seven, or eleven. Indian music frequently divides beats (*matras*) into odd groupings. In Karnatak music, internal subdivisions of a beat are described by five categories of *gati*--subdivision of a beat into three parts is *tisra gati*, four parts is *caturasra gati*, five parts is *khanda gati*, seven parts is *misra gati*, and nine parts is *sankirna gati* (hartigan 1238). In Hindustani music, each way that a *matra* can be subdivided has a separate name: into one part is *ekgun*, two is *dugun*, three is *tigun*, four is *chaugun*, five is *panchgun*, six is *chegun*, seven is *sathgun*, and eight is *athgun* (Gottlieb 45). There are also terms for more complicated divisions of the beat, such as the division of two *matras* into three parts (*dedhgun*), four *matras* into seven parts (*paunedugun*), etc.

Similarly, any taal length can be used to create the cycled meter, and any underlying pulse (represented here by the time signature-- $5/4$ ,  $7/8$ ,  $3/16$ , etc.) can be kept with the feet.

## Example 7.29

## Roopak Theka - Method 6

a.

b.

Example 7.30 is an interpretation of a *tripalli gat* in roopak. This is a type of composition which goes through three *darja* (stages) of matra division (in this case, *tigun* to *chaugun* to *chegun*), and ends with a tihai. This gat spans three cycles of roopak taal. The composition is soloistic in nature, and likewise, the drumset adaptation would only be appropriate in a solo or a section of a piece where the drum activity does not conflict with other musicians in the ensemble. In this adaptation, I have used a technique not yet discussed--the use of a drum rudiment to represent a specific stroke on tabla. Rudiments are the fundamental building blocks of snare drumming, and by extension, drumset playing. In this pattern, I have used a rudiment called a *flam* (written as a grace note leading into another note) followed by another stroke to represent the bols *TraKe*. The *Tra* of *TraKe* is executed on tabla with a roll of the fingers on the shyahi, producing three quick individual mute strokes in succession. The most similar drum rudiment to this is a *ruff*, which is three quick strokes in succession, but the tempo of the composition makes it difficult to execute a ruff. The next closest rudiment is the flam. In the third measure of the drumset example, the flam is omitted due to the speed of the strokes. Similarly, in tabla playing, if the tempo becomes too quick to produce the true *Tra*, a single stroke is substituted.

## Example 7.30

## Roopak Tripalli Gat

Din-Ge Din-Ge TaKiTe TaKiTe DhaTraKe DheTiTe KaTaGa DiGaNa  
DhaTraKeDi TiTiKaTa GaDiGaNa Dha  
Din-GeDin-Ge TaKiTeTaKiTe DhaTraKeDheTiTe KaTaGaDiGaNa  
Dha--DhaTraKe DheTiTeKaTaGa DiGaNaDha-- DhaTraKeDheTiTe  
KaTaGaDiGaNa Tin

## Example 7.31

## Roopak Tukra

DinDin TiTeTiTe GeGeTiTe  
GeGeDin- GeGe-Ta GeGeNaNa Ge-Ge-TiRiKiTe  
Dhin-GeGe -TaGeGe NaNaGeGe  
TiRiKeTeDhin--- GeGe-Ta GeGeNaNa Ge-Ge-TiRiKiTe Tin  
X



### Jhaptaal

Jhaptaal is a cycle of ten beats consisting of a sam vibhag of two matras, a tali vibhag of three matras, a khali vibhag of two matras and another tali vibhag of three matras. In the drumset examples, in order to facilitate reading, jhaptaal compositions will be written as two measures of 5/4 time. Example 7.32 shows the jhaptaal theka, followed by example 7.33, two drumset adaptations of the theka, and example 7.34, two interpretations of prakars.

#### Example 7.32

##### *Jhaptaal theka*

Dhi Nā Dhi Dhi Nā Ti Nā Dhi Dhi Nā  
 X            2                    O            3

#### Example 7.33

##### Jhaptaal Theka

a.

b.



*Palta 2*

GeNāTu NāGeNā GeNāTu NāGeNā DhaTiTe  
DhaGeNā DhaTiTe DhaGeNā DhaGeTu NāKiNā  
KeNāTu NāKeNā KeNāTu NāKeNā DhaTiTe  
DhaGeNā DhaTiTe DhaGeNā DhaGeTu NāGiNā

*Palta 3*

DhaDha- DhaGiNā Dha DhaGeTu NāGiNā  
DhaGeTi TeTiTe DhaGiNā DhaGeTu NāKiNā  
TāTā- TāKiNā Tā DhaGeTu NāGiNā  
DhaGeTi TeTiTe DhaGiNā DhaGeTu NāGiNā

*Palta 4*

DhaTiTe DhaGeNā DhaTiTe DhaGeNā Dha  
DhaGiNā DhaTiTe DhaGiNā DhaGeTu NāKiNā  
TāTiTe TāKeNā TāTiTe TāKeNā Dha  
DhaGiNā DhaTiTe DhaGiNā DhaGeTu NāGiNā

*Tihai*

DhaTiTe DhaGiNā DhaGeTu NāGiNā Dha Kran Dhin 3X

*Drumset Adaptations*Method 1: Specific Timbre-to-Bol Assignment

The drumset timbre-to-bol assignments for example 7.36 are as follows:

Dha: Ride cymbal and bass drum together

Ti/Te: Snare drum

Nā/Tā: Ride cymbal

Tun: Mounted tom

Ge/Gi: Bass drum

Ki: High-hat with foot

## Example 7.36

**Jhaptaal - Method 1**

DhaTiTe DhaGiNā Dha DhaGeTu NāGiNā  
DhaGeTi TeTiTe DhaGiNā DhaGeTu NāKiNā  
TāTiTe TāKiNā Tā DhaGeTu NāGiNā  
DhaGeTi TeTiTe DhaGiNā DhaGeTu NāGiNā

Method 2: Free Association

In example 7.37, the ride cymbal pattern in method 1 has been modified to create a consistent jazz swing feel. Although this and all of the jhaptaal kayda patterns have been notated in 15/8 to make the notation cleaner, the swing is felt in five (as either 5/4 or 10/4). The function of the high-hat is not to create timbral similarity to the bols it represents, but to reinforce the swing feel in a manner consistent with the jazz tradition. The bass drum, snare drum, and mounted tom, although closely paralleling their functions in method 1, have an improvised feel, also consistent with their traditional use in a jazz context.

## Example 7.37

## Jhaptaal Kayda - Method 2

DhaTiTe DhaGiNā Dha DhaGeTu NāGiNā  
DhaGeTi TeTiTe DhaGiNā DhaGeTu NāKiNā  
TāTiTe TāKiNā Tā DhaGeTu NāGiNā  
DhaGeTi TeTiTe DhaGiNā DhaGeTu NāGiNā

Method 3: Free Interpretation

Example 7.38 is a partially skeletonized version of this jhaptaal kayda in an Afro-Latin feel. The khula-bandh structure is maintained in this pattern not by substituting a non-resonant sound for a low resonant one, but by eliminating the sound altogether (the first partial of beat 1, measure 3).

Example 7.39 is a skeletonized version of the kayda in a jazz swing feel. The paltas and tihai are taken from this pattern, shown in examples 7.40-7.42. As in method 2, the ride cymbal and high-hat keep the swing, while the snare, bass, and tom create interplay within this. Khula-bandh structure has been preserved by the replacement of snare drum strokes with snare drum rim clicks, and by the lack of bass drum at the end of the second and beginning of the third measures.

## Example 7.38

## Jhaptaal Kayda - Method 3 (a)



DhaTiTe DhaGiNā Dha DhaGeTu NāGiNā  
DhaGeTi TeTiTe DhaGiNā DhaGeTu NāKiNā  
TāTiTe TāKiNā Tā DhaGeTu NāGiNā  
DhaGeTi TeTiTe DhaGiNā DhaGeTu NāGiNā

## Example 7.39

## Jhaptaal Kayda - Method 3 (b)



DhaTiTe DhaGiNā Dha DhaGeTu NāGiNā  
DhaGeTi TeTiTe DhaGiNā DhaGeTu NāKiNā  
TāTiTe TāKiNā Tā DhaGeTu NāGiNā  
DhaGeTi TeTiTe DhaGiNā DhaGeTu NāGiNā

## Example 7.40

## Palta 1

DhaGeTu NāGiNā TuNāGe DhaGiNā DhaTiTe  
DhaGiNā DhaTiTe DhaGiNā DhaGeTu NāKiNā  
TāKeTu NāKiNā TuNāKe TāKiNā DhaTiTe  
DhaGiNā DhaTiTe DhaGiNā DhaGeTu NāGiNā

## Example 7.41

## Palta 2

GeNāTu NāGeNā GeNāTu NāGeNā DhaTiTe  
DhaGeNā DhaTiTe DhaGeNā DhaGeTu NāKiNā  
KeNāTu NāKeNā KeNāTu NāKeNā DhaTiTe  
DhaGeNā DhaTiTe DhaGeNā DhaGeTu NāGiNā

## Example 7.42

Tihai

DhaTiTe DhaGiNā DhaGeTu NāGiNā Dha Kran Dhin 3X

\*\*\*\*\*

Additional Patterns

Example 7.43 shows a *chakradar tukra* in jhaptaal. This is a tukra (a short soloistic composition ending with a tihai) in which the entire composition must be repeated three times before coming out on the sam of the cycle. One repetition of the composition does not fit evenly into the given taal. One repetition of this jhaptaal chakradar tukra is 17 beats long; therefore, three repetitions makes 51 beats, which is five cycles of jhaptaal plus the sam of the next cycle.

Teentaal is a 16 beat cycle--including the sam of the next cycle creates a 17 beat phrase. Therefore, any one-avartan composition in teentaal, plus the next sam, when repeated three times, will fit evenly into jhaptaal.

Similarly, any one-avartan composition in jhaptaal is 10 beats--including the next sam creates an 11 beats phrase. When repeated three times, this equals 33 beats, which is two cycles of teentaal plus the next sam. Any one-cycle jhaptaal composition plus the next sam repeated three times fits evenly into teentaal.



This concept is yet another approach to method 6 (taals as open time-cycles). This is a macro-approach--the superimposition of longer time-cycles moving at the same rate (even if as here they only fit evenly for one cycle), as opposed to one meter cycling within subdivisions of another.

There is no end to the creative polymeric structures that can be played either by a drumset player alone, or, just as effectively, by different members of an ensemble. To give one more example, a cycle of seven (not including the first beat of the next cycle) repeated three times is 21 beats, which fits evenly into a 10 beat cycle, coming out on the first beat of the third cycle.

Example 7.43

Jhaptaal Chakradar Tukra

Dha-TiRiKiTiTaKe Tā-TiRiKiTiTaKe DheTiTeTi GeRiNaGe  
KraDha-Kra DhaKat Dha-TiRiKiTiTaKe Tā-TiRiKiTiTaKe  
TikKran Dha---Dha-TiRi KiTiTaKeTā-TiRi KiTiTaKeTik---  
KranDha Dha-TiRiKiTiTaKe Tā-TiRiKiTiTaKe TikKran Dha

Example 44

Jhaptaal Tukra

DhaDhaDha DhinDhinDhin NāNāNā TiTeTiTeTiTe TiRiKiTiTaKeTā----  
TiRiKiTiTaKeTā----- TiRiKiTiTaKe.Ta-Kran- Dha-----TiRiKiTiTaKe  
Ta-Kran-Dha--- TiRiKiTiTaKe.Ta-Kran- Dha



## Example 7.46

**Dadra Theka**

a. 

b. 

## Example 7.47

*Kaharwa prakars*

- a. Dha TiTe Dhin Nā Tā TiTe Dhin Nā
- b. Dha Dhin Nā Tin Nā Dhin NāNā TiTe
- c. Ge Ti Te Nā Ka Ta Ge Nā
- d. Dhin Dhin - Dhin (Dha) Tin - Tin

**Kaharwa Prakar**

a. 

b. 

c. 

d. 

## Example 7.48

**Dadra Theka**

a. 

b. 

## Example 7.49

*Dadra prakars*

- a. Dha Dhi NāNā Dha Tun NāNā
- b. Dha DhiNā TiTe Tā DhiNā TiTe
- c. DhaGe DhiNā GiNā TāGe DhiNā GiNā

**Dadra Prakar**

a. 

b. 

c. 

### Tihais

To reiterate, a tihai is a cadential rhythmic device in which a phrase is repeated three times so that **the last beat of the third repetition** lands on the sam of the taal. Tihais have already been seen in many of the previous drumset adaptations, both as endings to kaydas, and within the compositional types gat and tukra. This section of the study looks further into the uses for tihais on the drums.

In my own playing experience I have found that tihai structures are very useful on the drumset even when not playing otherwise Indian-related patterns. They can be used in a solo context, or to complete a musical phrase in ensemble playing, in either case providing tension and release. Because tihais are open temporal structures that can be filled musically in a variety of ways, any musical style can be portrayed by using idiomatic phrases to build the tihai.

In practically every musical style in which the drumset is used, the drummer often plays "fills," short soloistic phrases, at important structural points in the music such as the end of the form, or the end of a melodic phrase. Although musical phrases can be of any length, the most common phrase lengths in jazz and related styles are 8 measures, 12 measures, and 16 measures. Example 7.50 shows where to begin tihais of lengths from 1-16 matras (beats) in an 8 measure musical phrase.

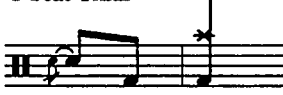
Example 7.50 *Starting points for tihai drum fills in an eight-measure phrase*

<u>Tihai length</u> <u>in matras</u>	<u>1 Matra = One quarter note</u>	<u>1 Matra = Two quarter notes</u>
1	beat 4, m.8	beat 3, m.8
2	beat 3, m.8	beat 1, m.8
3	beat 2, m.8	beat 3, m.7
4	beat 1, m.8	beat 1, m.7
5	beat 4, m.7	beat 3, m.6
6	beat 3, m.7	beat 1, m.6
7	beat 2, m.7	beat 3, m.5
8	beat 1, m.7	beat 1, m.5
9	beat 4, m.6	beat 3, m.4
10	beat 3, m.6	beat 1, m.4
11	beat 2, m.6	beat 3, m.3
12	beat 1, m.6	beat 1, m.3
13	beat 4, m.5	beat 3, m.2
14	beat 3, m.5	beat 1, m.2
15	beat 2, m.5	beat 3, m.1
16	beat 1, m.5	beat 1, m.1

Within a specified matra length, tihais could be constructed many different ways, depending upon the length of each phrase, the bols/timbres and rhythm chosen to construct each phrase, and the length of the pause between the repetitions. Example 7.51 gives examples of tihais on the drumset from 1-16 beats in length. These tihais were composed on the drumset, and do not represent specific bol patterns. There is only one example for each length, and it must be understood that many other tihais of the same length could be composed depending upon the factors just stated.

Example 18 *Drumset tihais from 1-16 beats in length*

1-beat Tihai



2-beat Tihai



3-beat Tihai



4-beat Tihai



5-beat Tihai



6-beat Tihai



7-beat Tihai



8-beat Tihai



9-beat Tihai



10-beat Tihai



11-beat Tihai



12-beat Tihai



13-beat Tihai



14-beat Tihai





15-beat Tihai

16-beat Tihai

## GLOSSARY

- Aamad**      The creative, artistic manner at which the *sam* is arrived.
- Avartan**     One cycle of any *taal* from the first beat to the last.
- Bandh**        Closed section of certain compositional types, using non-resonant or no strokes of the  *bayan*. Opposite of *khula*.
- Bayan**        Lit. "left". The left-hand drum; i.e., the *dagga*.
- Bol**            Any of numerous spoken syllables used to onomatopoeically represent the strokes produced on the tabla and other North Indian drums.
- Chakradar**    A composition containing a *tihai* in which the entire composition is repeated three times before coming out on the *sam* of the *taal*.
- Chaupalli**    Designation for a composition which moves through four levels of *lay*.
- Dahina**       Also *Dayan*--lit. "right". The right-hand drum; i.e., the tabla.
- Damdar**       Describes a *tihai* containing a pause after the last *bol* of the phrase before the phrase is repeated.
- Gat**            Though having a variety of meanings, in North Indian drumming *gat* describes a particular genre of composition, generally having variety within the rhythmic patterns of the phrases.
- Gharana**      Traditional regional/familial style or "school" of tabla playing.
- Guru**          A teacher or spiritual parent.
- Kayda**        A composition created to conform to the *vibhag* structure of a *taal*, requiring systematic improvisation of the phrases.
- Kathak**       Principle form of North Indian classical dance. Accompanied originally by *pakawaj*, and later by tabla.
- Khali**          Refers to the "empty" side of the *avartan*, defined by *bandh* (closed) strokes of the  *bayan*.

Khula	Open or "full" section of certain compositional types, using resonant sounds on the <i>bayan</i> . Opposite of <i>bandh</i> .
Kinar	Lit. "edge." The outermost layer of the tabla head ( <i>puri</i> ) on which resonant strokes produce the brightest overtones.
Lahara	A repeated melodic pattern in a specific <i>taal</i> used to accompany tabla solo performance.
Lay	Also <i>Laya</i> . Essentially, tempo. There are three general levels or stages ( <i>darja</i> ) of lay: <i>vilambit</i> (slow), <i>madhya</i> (medium), and <i>drut</i> (fast).
Matra	The basic unit of time measurement, equivalent to one beat or count.
Naqqara	A pair of kettledrums of Persian and Arabic origin believed to have influenced the development of the tabla.
Pakhawaj	A North Indian drum which influenced the techniques and repertoire of the tabla.
Sam	The first matra (beat) of a <i>taal</i> cycle.
Shyahi	The black resin patch on both the <i>bayan</i> and <i>dahina</i> .
Sur	The center layer of the tabla head ( <i>puri</i> ), on which resonant strokes produce the clearest overtones.
Taal	Also <i>Tala</i> . Refers to both rhythm in general, and any of numerous standardized time-cycles with a fixed number of beats, <i>vibhag</i> structure, and <i>theka</i> (basic composition), used as a basis for performance of Indian music.
Ti heka	The composition defining the basic set of <i>bols</i> and <i>vibhag</i> structure for a particular <i>taal</i> .
Tihai	A rhythmic cadence consisting of a phrase which, when repeated three times, arrives at the <i>sam</i> of the cycle. May begin at any point within the cycle.
Tripalli	Designation for a composition which moves through three levels of <i>lay</i> .
Tukra	A short composition which ends with a <i>tihai</i> .
Vibhag	A subdivision of the taal cycle containing two or more <i>matras</i> .

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## APPENDIX A: Drumset Notational Key

### DRUM KEY

The diagram illustrates the notation for various drumming techniques across four drum parts: Mounted Tom, Snare Drum, Floor Tom, and Bass Drum. The techniques are represented by specific symbols on the staves:

- Rim Click:** Represented by an 'x' on the Snare Drum staff.
- Rim Shot R.S.:** Represented by an 'x' on the Snare Drum staff.
- Hi-Hat w/stick:** Represented by an 'x' on the Snare Drum staff.
- Hi-Hat Open:** Represented by a circle with a dot on the Snare Drum staff.
- Ride Cym.:** Represented by an 'x' on the Snare Drum staff.
- Ride Cym. On Bell:** Represented by a circle with a dot on the Snare Drum staff.
- Crash Cym.:** Represented by an 'x' on the Snare Drum staff.
- Hi-Hat w/foot:** Represented by an 'x' on the Bass Drum staff.
- One Hand Buzz Roll:** Represented by a vertical line with a dot on the Snare Drum staff.
- Dead Stroke:** Represented by a vertical line with a dot on the Snare Drum staff.

Notes in parentheses are optional.

The parts of the drumset are shown in Plate 3.

## APPENDIX B: Descriptions of Primary Bol Strokes

Descriptions as taught by Sudhir Kumar Verma, principal of the Bhatkhande College of Hindustani Music in Lucknow, India. Stylistic techniques vary greatly between regions and between teachers. S.K. Verma was the disciple of Ahmadjan Thirakwa, who was familiar with all the major gharana styles.

The sections of the tabla *puri* (head) are shown in Plate 2.

### Dahina Strokes

- *Nā*: Most common dahina stroke. A high, clear, ringing overtone produced by resting the ring finger on the *puri* while striking it with the tip of the index finger on the *sur* at the edge of the *kinar*.

- *Tin*: Less bright ringing tone using the same technique as *Na*, but striking on the *sur* at the edge of the *shyahi*.

- *Tā*: Similar to *Na*, but striking on the *kinar*, producing the highest-pitched, brightest overtones.

- *Ti*: A tight, short, percussive sound produced on the *shyahi* with either the middle or middle and index fingers.

- *Te/Ta*: Same as *Ti* except with the index finger. Fingering of *Ti* and *Te* may switch depending on the composition.

- *Tun*: Open sound of the drum when struck with a sweeping motion of the index finger at the *sur/kinar* line.

- *Ti/Ta*: Middle and index fingers slapped on the *shyahi*.

### Bayan Strokes

- *Ge/Ghe/Ga/Gi*: Open sounds of the  *bayan*  produced interchangeably by the index, middle, or middle and ring fingers, with the wrist resting on the *puri* just outside the *shyahi*.



- *Ke/Ki*: Closed sound of the bayan played by striking all the fingers down with the wrist fixed on the puri. Sometimes played with index finger only.

- *Kat/Ka*: Louder slap produced similarly to Ke, but with the wrist lifted, and the entire hand coming down.

### Combination Strokes

- *Dha*: *Nā* + *Ge*

- *Dhin/Dhi*: *Tin* + *Ge*

- *Dhet/Dhe/Dhi*: *Ti* + *Ge*

- *Kran*: *Na* + *Kat* in quick succession

- *Kra*: *Ka* + *Ti* in quick succession

### Examples of common bol combinations used in compositional phrases

- *TiRiKiTe*: *Ti-Te-Ke-Ti*

- *DhirDhir (ThirThir)*: *Dhir* or *Thir* by itself represents a pair of strokes (*DhiRe/ThiRe*), played by alternating edges of the palm in succession on the edge of the dahina opposite the player. In *DhirDhir*, *Ge* accompanies the first stroke of each stroke pair.

- *DhiNaGeNa*: *Dhin*--long sweep across kinar/sur area by middle and index fingers + *Ge*. First *Na*--reverse sweep of *Dhin* (not as strong). Last *Na*--muted light touch of same fingers.

- *GaDiGaNa*: *Ga* = *Ge*. *Di*--open sound produced by the hand striking the entire puri. *Na*--muted light touch of middle and index fingers.