
Folk Grooves and Tabla *Tāl-s**

1. *Tāl* (Sanskrit: *tāla*) refers both to the abstract rhythmic system found in the music theory of the Indian subcontinent and to specific metric patterns. Repeated cyclically, these metric patterns provide a stable framework for composition and performance. Their structural properties are marked by an ancient system of hand gestures which subdivide the cycle into segments of equal or unequal length, and which create an internal rhythmic hierarchy. Performers and audience members are often seen gesturing with claps and waves: the clap is produced by slapping the right palm down onto the left, or onto the thigh; the wave is, by contrast, a silent gesture in which the right hand moves away and turns palm-upwards, ending with a small bounce akin to a conductor's beat that effectively marks the absence of a clap. By convention, claps are notated with a sequence of numbers, and waves are designated by a zero (0). However, the clap marking the all-important beginning of a cycle (*sam*) is usually accorded an X rather than the number 1.
2. The system of gestures is adhered to rigorously in the southern Indian classical system known as Karnatak music, and somewhat less rigorously in the northern Indian classical system known as Hindustani music. The modern performance traditions that now dominate Hindustani music are rooted in developments that occurred in the eighteenth and nineteenth centuries: *khayāl* singing (see Bonnie Wade's comprehensive discussion of this genre, 1984), and the *sitār* and *sarod* instrumental traditions (see Allyn Miner's seminal work, 1993). These are now routinely accompanied by the tabla drum pair, whose provenance can also be traced to the early eighteenth century. However, the tabla was originally used to accompany the lighter songs and dances of the *tavāif-s* (courtesans), and it gradually spread and rose in importance until it finally supplanted the older and more austere *pakhāvāj* (double-headed barrel drum) as the pre-eminent drum of Hindustani classical music by the end of the nineteenth century. It is my contention that the main reason the clapping gestures are less rigorously adhered to in this music is that the metric-rhythmic system of the upstart tabla is in many ways incongruent with the older system of *tāl* that is preserved in the *pakhāvāj* drumming tradition. By contrast, the tabla's drumming patterns are largely indebted to folk, light, and semi-classical rhythms and meters that follow different rules. I have characterized these rhythms as grooves, by which I mean regularly repeating accentual patterns rooted in bodily movement (i.e. dance).

3. Modern Indian scholars and performers of Hindustani traditions, particularly those who have come to it as a vocation and not as an hereditary occupational specialization, have often promoted a revisionist interpretation of the music: one that emphasizes its ancient Hindu roots, its spiritual and intellectual properties, and its solid theoretical sophistication. The remarkable yet unpublished dissertation of Rebecca Stewart (1974) was the first to challenge this view by investigating *ṭhekā*-s: the fixed accompanimental patterns played by the tabla. I intend to build on this work by peeling away some of the layers to expose the true nature of tabla *tāl*-s. What is revealed, I think, has implications for the retelling of Hindustani music history.

The Concept of *ṭhekā* in Relation to the *pakhāvāj*

4. Metric cycles are found in the northern Hindustani system as well as in the southern Karnatak system, but only in the first are they articulated by a fairly fixed series of *bol*-s, or quasi-onomatopoeic syllables with corresponding drum strokes (e.g. "dhā ge nā tira kiṭa" etc.). When repeated cyclically these syllabic/stroke patterns are known as *ṭhekā*, meaning "support": an appropriate word in view of their essential function as supporting or accompanying patterns. Among traditional (that is, hereditary) Hindustani musicians I have found that the *ṭhekā* is the primary signifier of a *tāl*, not the clapping pattern. Since no equivalent fixed pattern exists in Karnatak music the gestures dominate there, often to the extent that a knowledgeable audience joins the musicians in unerring sequences of claps, waves, and finger counts. This is rarely the case with a Hindustani concert. The difference, then, is that Hindustani meter is an internal notion that is externalized by the *ṭhekā* while Karnatak meter is an internal notion that is externalized by clapping.
5. The notable exception in Hindustani music is *dhrupad*, which retains much of its gestural language: in this older, and now much rarer, genre accompanied by the *pakhāvāj* there was almost certainly no concept equivalent to *ṭhekā*, and the early twentieth-century scholar V.N. Bhatkhande's invented term *thapīyā* has no currency (I have never heard it used). As is the case in Karnatak music, Hindustani *dhrupad* singers and *pakhāvāj* drummers perform compositions and improvisations simultaneously, and so rather than repeated cycles of fixed *bol* patterns it is the hand gestures that provide (i.e. externalize) the necessary temporal markers. It seems likely that both the concept and the practice of *ṭhekā*, if not the term, were borrowed by the *pakhāvāj* in recent times. *Bol* patterns (see Figure 1) associated with traditional *pakhāvāj tāl*-s (e.g. *tīvrā*, *sūltāl*, *cautāl*)¹ are really adaptations or extensions of a short *paran* (composed sequence) that ends

with a standard cadential figure ("tiṭe katā gadī gena"). As markers of the internal structure of the *tāl*-s these patterns are inconsistent, otherwise the position of the claps (X, 2, 3 etc.) and waves (0) would have more in common. (Note, in particular, that "tiṭe katā gadī gena" is marked by a clap and a wave in *sūltāl* and by two claps in *cautāl*). I would like to say that these *pakhāvaj bol* patterns qua *ṭhekā*-s have probably become fixed by a mixture of habit and the scholarly (and/or modern didactic) practice of writing them down, but more evidence is needed.

**Figure 1: Comparison of the structures of
sūltāl, *cautāl*, *tīvrā*, and *dhammār***

Sūltāl (10 counts)

L				S		L			
X		0		2		3		0	
dhā	dhā	din	tā	kiṭa	dhā	tiṭe	katā	gadī	gena

Cautāl (12 counts)

L				L				S		S	
X		0		2		0		3		4	
dhā	dhā	din	tā	kiṭa	dhā	din	tā	tiṭe	katā	gadī	gena

Tīvrā (7 counts)

L		S	L		L	
X			2		3	
dhā	din	tā	tiṭe	katā	gadī	gena

(*Horī*-) *Dhammār* (14 counts)

kat	dhit	ṭa	dhit	ṭa	dhā	–	kat	tit	ṭa	tit	ṭa	tā	–
X					2		0			3			
X					2		0			3			

NB: The second clapping structure represents more accurately the inherent symmetry of the phrase, but *dhrupad* performers, *pakhāvaj* players, and text books list the first as the standard *vibhāg* architecture for *dhammār*. *Pañjābī dhammār* is clapped 3+4+3+4.

6. *Pakhāvaj tāl*-s are thought to be linked to Sanskrit verse whose agogic organization is essentially an additive, or quantitative, system of short (S) and long (L) syllables: the short, marked as a clap, is half the duration of the long, marked by a clap plus a wave. In this system, though, each clap and wave in *sūltāl* and *cautāl* is given its own *vibhāg*, or subdivision. *Tīvrā* is clapped and played as 3+2+2, but is rationalized as 2+1+2+2, or LSSL. *Dhammār* (or *horī dhammār*), a fourteen-count² *tāl* whose constituent *bol*-s and structure are hotly debated, is an exception that can be explained by the fact that it was borrowed from the folk music of the Mathura region (the homeland of Lord Krishna).

The Problem with Tabla *tāl*-s

7. For all genres other than *dhrupad* it is the tabla (two-piece tuned drum set) that is Hindustani music's indispensable time-keeper. Popular and scholarly texts (e.g. the widely-found *Tāl Prakāś*) and manuals list dozens of *tāl*-s and *ṭhekā*-s, most of which are rarely, if ever, performed outside of an artificial context. The Bhatkhande Sangeet Vidyapith tabla syllabus³, for example, expects a working knowledge of, among others, "Shikhar, Rudra, Yati Shikhar and Chitra" and "Basant, Brahma, Laxmi, Vishnu, Ganesh and Mani." Taranath Rao's *Pranava Tala Prajna* (Feldman 1995) lists, in addition to several common and not-so-common varieties, 101 obscure *tāl*-s ranging from two to thirty-five counts. All painstakingly notate the *sam* (the beginning of the cycle, with an X), *vibhāg*-s (subdivisions), *tālī*-s (claps), *khālī*-s (waves), and *mātrā*-s (counts). One purpose of this seemingly perverse interest in *tāl* esoterica is, I think, to vindicate the tabla as an Indian instrument with a quintessentially Indian theory, terminology, and repertoire rooted deeply in a Hindu past. Since the tabla has traditionally been played almost entirely by Muslim hereditary specialists, the socio-political significance of this revisionary change in focus becomes obvious, particularly in the context of an increasingly Hindu nationalist India following Independence.⁴
8. Although the late-twentieth century has seen an increasingly large number of *tāl*-s in use, the tabla's traditional role of accompaniment was carried out with just a few of them and its solo repertoire was, for the most part, set in just one: *tīntāl*. The semi-classical *ṭhumrī/dādrā* and classical *khayāl* vocal genres have repertoires of compositions in various *tāl*-s of six, seven, eight, ten, twelve, fourteen, and sixteen counts. Instrumental music, according to Ravi Shankar, only began exploring beyond the boundaries of *tīntāl* as a result of innovative *gat*-s (compositions) introduced by his teacher Alauddin Khan in the early part of the twentieth century. Shankar himself added more, often using *tāl*-s with odd

numbers of counts (nine, eleven, thirteen, fifteen) and even fractions (Shankar 30).

9. Scholars continue to puzzle over the incongruities (see Figure 2) of the Hindustani *tāl* system. Why does seven-count *rūpak* begin with a wave instead of a clap? Can the *sam* in *rūpak* also be the *khālī*? Why does a "dhā" occur on the ninth count in *tīntāl* when the structure suggests a "tā," and, conversely, why is there a "tā" on the thirteenth count when one expects a "dhā"? (See Erdman 23.) Why does the *ṭhekā* of twelve-count *ektāl* seemingly defy the internal divisional structure of the *tāl*? And why does *ektāl* have two *khālī*-s? As Joan Erdman found (*ibid.*), there is little to be gained from asking traditional musicians since they tend to accept uncritically the knowledge they inherit from their forefathers. Among writers it is common to offer the ready excuse that *lakṣaṇa* (theory) simply lags behind *lakṣya* (practice) (Ramanathan 15). But most modern theory, in my view, suffers from an inability to problematize Hindustani *tāl* and an unwillingness to relate it to the sociocultural milieu in which this system emerged.

Figure 2: The (modern) structures of *rūpak*, *ektāl*, and *tīntāl*

***Rūpak* (7 counts)**

Tin	Tin	nā	Dhin	nā	Dhin	nā
0			2		3	

***Ektāl* (12 counts)**

Dhin	Dhin	dhāge	tirakiṭa	Tīñ (tūn)	nā	kat	Tā	dhāge	tirakiṭa	Dhin	nā
X		0		2		0		3		4	

***Tīntāl* (16 counts)**

dhā	Dhin	Dhin	dhā	dhā	Dhin	Dhin	dhā	dhā	Tin	Tin	tā	tā	Dhin	Dhin	dhā
X				2				0				3			

10. The answer to these *tāl* puzzles at the broadest level, I would suggest, is that Hindustani *tāl* has developed organically from the rhythmic characteristics of a range of folk, popular, and semi-classical genres, and it simply does not fit the classical theoretical model for rhythm and meter. Effectively, the rhythms of these other genres, or grooves as I like to characterize them, have largely been superimposed on existing metrical frameworks derived from Sanskrit verse. This idea is not new: Rebecca Stewart has made a splendid case for this view, and Peter Manuel's excellent work on the *ṭhumrī* has provided evidence that this most influential of genres used folk-derived rhythmic structures.

From Folk to Classical: The Emergence and Rise of the Tabla

11. Through a combination of pictorial and genealogical evidence Stewart has argued that the tabla emerged in the second quarter of the eighteenth century, probably in the Punjab hill chieftaincies. Genealogical evidence further suggests that the tabla was the domain of a caste of bards known as *Ḍhārḥī* (also *Ḍhāḍhī*, *Ḍhārī*) who came from the region of the Punjab and Rajasthan (see Bor 60-2); for centuries they had used drum (*ḍhaḍ*) and fiddle (*sāraṅgī*) to accompany songs that documented the genealogies and praised the heroic feats of their patrons. Like *Ḍhārḥīs* before them (they are mentioned in Abu-l Fazl's *Akbar Nama* of the late sixteenth century) these early tabla drummers migrated to larger and richer centres of patronage, the ultimate source of which was the Imperial Mughal capital, Delhi. It was to there and to about 1750 that we can trace the first identifiable member of the Delhi lineage of tabla players, Sudhar Khan. For the next fifty to seventy-five years we note a steady increase in the portrayal of the drums (see Figure 3), which were usually played standing, bound waist-high in a cloth.

Figure 3: A nautch party



12. A drummer's passport to the courts was through the entourages of the *tavāif*-s, the courtesans of North India who were experts in the arts of dancing, singing, poetry, and love. Owing to the socio-political demise of Delhi in the late eighteenth century many courtesans and their troupes migrated to other centres of patronage, most notably Awadh (also Oudh or Oude) to the east. Awadh's capital, Lucknow (from 1775), soon emerged as the new seat of Hindustani culture, and wealthy *navāb*-s (viceroys) and their courtiers helped create a fertile environment for the emergence and development of so many forms and styles of music that we know today (see Kippen 16-26). In Delhi courtesans had specialized in performing the light and popular Urdu *gazzal* and Persian *rekhtā*, but in Lucknow they turned to the newly emerging, sensuous and often erotic *ṭhumrī*: a genre with strong folk roots (sung mainly in the rich and colorful Braj dialect of the Mathura region) that promoted a different kind of expressive musical language in which the tabla would come to play a significant role. The *ṭhumrī* was performed with accompanying dance gestures that illustrated and intensified the meanings and sentiments of the texts. Rather than the athletic, twirling, highly-choreographed *kathak* of today, eighteenth and nineteenth-century descriptions suggest that these dances were more physically-restricted and comprised subtle gestures and characterizations: for instance, the lilting, seductive walk of a woman shyly lifting her veil to allow her lover a glimpse of her face. These affective, interpretive aspects of dance are known as *abhināya* in modern *kathak*.

13. The tabla's function in the dancer's ensemble would therefore most likely have been to provide the same type of rhythmic accompaniment traditionally given by the *naqqāra* (hemispherical clay kettles played with sticks) and especially the *ḍholak* (barrel drum). It is not surprising, therefore, that despite the tabla's clear organological indebtedness to the *pakhāvāj* (structurally the tuned head was identical, and the cylindrical wooden bass drum even used a temporary spot made of dough, as it still sometimes does in the Punjab) it began to take on physical aspects of the *naqqāra* by replacing the cylindrical wooden bass drum with a small hemispherical clay kettledrum. Moreover, tabla strokes and patterns were heavily influenced by the *naqqāra* and the *ḍholak* (Stewart 22-73). *Naqqāra* strokes (see Figure 4) differentiated effectively between high and low pitch levels ("tā/ge"), timbre ("tā/Tin"), resonance ("Tin/tit"), and stress ("tā/nā"), with pitch and stress being dominant (see Stewart 36-8 & 97). The *ḍholak*'s great gift to the tabla was the flexible-pitch bass drum technique which added a richly modulated, almost vocal inflection. The beauty of the tabla, and one of the most persuasive reasons for its rapid rise to prominence, was that it could mimic effectively the sounds, and therefore the repertoires, of all other drums of the period, including the *pakhāvāj*.

Figure 4: Selected *naqqāra* strokes*

Pitch levels:	tā	<i>high</i> ← →	<i>low</i>	ge
Timbre:	tā	<i>rim</i> ← →	<i>center</i>	Tin
Resonance:	Tin	<i>long</i> ← →	<i>short</i>	tit
Stress:	tā	<i>more</i> ← →	<i>less</i>	nā

*adapted from Stewart (1974: 97)

NB – Capitalization in my notational system is used to differentiate between the tonic harmonic (Tā, Tin etc.) played on *sūr* (center) and other strokes sharing the same syllables, such as the "tā" on *kinār* (rim), and the low-pitched "tin" (aka. tīn, tī, tū, tūn).

The Divisive and Qualitative Nature of Tabla *tāl*-s

14. There were two main kinds of *ṭhumrī* in the early nineteenth century: the *bol-banāo ṭhumrī*, which focussed on a highly flexible melodic interpretation of the text; and the *bol-bāñṭ ṭhumrī* which specialized in rhythmic manipulations of melody and text. Whereas the popular *gazal* had more commonly been set in shorter structures of six (*dādrā*), seven (*pashto*) and eight counts (*qavvālī*, *kaharvā*),

the *tāl*-s used for *ṭhumrī* compositions comprised mainly fourteen or sixteen counts (see Figure 5). As Manuel has shown (145-52), little separates fourteen- from sixteen-count *ṭhumrī tāl*-s, and since performance practice used to favor their flexible rhythmic interpretation they may in fact have been one and the same thing. Confusingly, both are called *cāñcar* or (latterly) *dīpcandī*, and *jat* is another word sometimes encountered.

Figure 5: Fourteen-and sixteen-count varieties of *cāñcar* (a.k.a. *dīpcandī*, *jat*)

dhā	Dhin	–	dhā	dhā	Tin	–	tā	Tin	–	dhā	dhā	Dhin	–
X			2				0			3			

dhā	–	Dhin	–	dhā	dhā	Tin	–	tā	–	Tin	–	dhā	dhā	Dhin	–
X				2				0				3			

15. Structural evidence suggests few differences between *tāl*-s of eight and sixteen counts (see Figure 6, included at the end of the article). In essence they all move in pitch from low to high, or from *bharī* (full) to *khālī* (empty), and back again. The quality of fullness is conveyed by the presence of the bass drum, which is represented by voiced syllables such as the phonemes "ga" and "dha"; emptiness is suggested by the absence of the bass, and the corresponding unvoiced syllables such as "ka" and "ta."
16. First, these are not additive structures but rather divisive, based on their internal hierarchy: all of these sixteen-count *tāl*-s could be, and indeed often are, counted as eight or four beats, and the eight-count varieties as four or two beats. Second, these are not quantitative structures but rather qualitative, based on the means they use to realize this: their variable pitch, stress, and timbral qualities can be seen to follow almost identical patterns of organization, which I have tried to show by vertical alignment. One notes the *vibhāg*-oriented changes in pitch, a strategy that highlights the tendency for the all-important *khālī* (the only surviving Arabic/Persian term among Sanskrit ones) to fall halfway through the patterns. When conceived as fours the final *vibhāg* prepares the return to *bharī* with a contrasting musical signal. Since greatest contrast is achieved through pitch differentiation, the fourth *vibhāg* often includes the return of the bass drum.

Sometimes, too, contrast is conveyed by density: a cadential flourish of more rapid strokes.

17. If we observe Figure 6 closely, the folk/popular-derived *kahārva* and *qavvālī* might not look very much alike in all their details, but they do share certain structural properties: they move from *bharī* to *khālī* using sequences of bol-s that are almost identical in their pitch and stress contours. Their similarities become even more apparent when examined in relation to the slower *dhamālī* (*dhamāl* is a folk dance from Rajasthan/Punjab) which, it could be argued, combines the cadential features of both the others. In turn, *dhamālī*'s relationship to the stately *tilvārā* (a hill fortress in the Punjab) and the primary *ṭhumrī tāl* of *cāñcar* (*cāñcarī* is a folk dance from the Punjab hills) is unmistakable. *Cāñcar* and *ekvāī pañjābī* are really varieties of the same thing, but with different rhythmic emphases within the *vibhāg*: both disguise the pulse, especially when the former is played in the now extinct *lañgrā* (limping) style (see Manuel 149-50). The purpose of such rhythmic ambiguity is probably to accommodate irregular melodic phrasing through sensitive accompaniment, and an important contributor to this is the variable-pitch "ghe" stroke (Stewart 368). And thus one sees the connection between these *tāl*-s and *pañjābī*, which also has the delightful name of "the donkey's tail *tāl*": *gaddhe kī dum kā tāl* ("gad dhe kī dum – kā tāl –") mimics accurately elements of pitch and stress not immediately obvious in the notation.
18. The distinctly swinging, lilting *pañjābī tāl* was one of the direct precursors of *tīntāl*, and even Bhatkhande referred to the latter as *pañjābī tīntāl* (KPM, vol.5: 11). The other was known as *dhīmā titāla*, or simply *dhīmā*, and was notated by Imam in the mid-nineteenth century (190). The name *dhīmā* also appeared regularly on early twentieth-century recording labels, in fact much more so than the term *tīntāl* (see Kinnear 1994). Although *dhīmā* means "slow", these early recordings show that its pace was what we would now think of as *madhya-drut lay* (medium-fast tempo): roughly 200 beats per minute. Recorded tabla accompaniments from this era show a strong tendency to integrate the rhythmic features and stroke patterns of both *pañjābī* and *dhīmā titāla*. Fast *tīntāl*'s indebtedness to *dhīmā* is undeniable, since it tends to use the recited phrase "nā Dhin Dhin nā" rather than the more cumbersome "dhā Dhin Dhin dhā" that is more suitable at slower speeds. Fast *tīntāl* also mimics effectively the "*thā thei thei tat*" *tatkār* (footwork) patterns of the *kathak* dancer. Fast *tīntāl* is nearly always reverted to at the conclusion of a *ṭhumrī*, where, in the past, the singer and/or members of the dance troupe were expected to dance in quick tempo as the final refrain of the song was repeated.

Solving Some of the Modern *tāl* Puzzles

19. The reason *tīntāl* (literally, "three *tāl*") is so called is because it was played in medium to fast tempo, counted as four beats, not sixteen: most commonly it would be marked by older musicians as "one, TWO, three, wave", with the two falling on *sam*. The ninth count is not *khālī* in itself; rather it is the third *vibhāg* which is empty. Since each internal phrase is an anacrusis to the next metrically strong beat, the *tāl* might best be represented as in Figure 7 with its four symmetrical phrases. Further evidence for the validity of this representation is that, when reciting tabla compositions in quick tempo, many older musicians begin from count ten with the words: "*Tin Tin nā nā Dhin Dhin nā*."

Figure 7: A structural representation of *tīntāl*

Tin		Tin		tā		tā	3 ("one")
Dhin		Dhin		dhā		dhā	X ("two")
Dhin		Dhin		dhā		dhā	2 ("three")
Dhin		Dhin		dhā		dhā	0 ("wave")

20. The *ṭhumrī* was immensely important in the development of performance practice in other genres such as *barā* and *choṭā khayāl*, and the instrumental *gat* traditions. (Rebecca Stewart's doctoral work in this regard must surely be the most important unpublished exploration of the subject. See also the work of Bonnie Wade (1984), Allyn Miner (1993), and Peter Manuel). *Tāl*-s used for the *bandish ṭhumrī* (an extension of the *bol-bāñṭ ṭhumrī*) such as *rūpak*, *jhaptāl*, and *ektāl*, soon found new and extended applications.
21. *Ektāl* (See Figure 8), which Stewart has characterized as a catchall term for several classical and folk rhythms (1974: 96), has superimposed a swinging, sesquialtera (or hemiola) pattern onto the agogic framework of *cautāl*. Its *ṭhekā* suggests that it is really best understood as four groups of three, in keeping with many of the melodic structures created for it; as such, its *tālī/khālī* structure mirrors that of the 16-count *tāl*-s. Argued in this way, *ektāl* has only one *khālī*; *cautāl* of course has none, because waves in the agogic system of long and short syllables are not *khālī*-s per se.

Figure 8: The real structure of *ektāl*?

Dhin	Dhin	dhāge	trkṭ	Tīñ (tūn)	nā	kat	Tā	dhāge	trkṭ	Dhin	nā
X			2			0			3		

22. *Rūpak* (see Figure 9) has superimposed the popular/folk rhythm from the Northwest Frontier known in India as *pashto* (but also, sometimes, as the Pakistani-Afghan *muḡlai* -- the term *rūpak* is virtually unknown in Pakistan) onto the agogic framework of *tīvrā*, probably in very recent times (compare this with Bhatkhande's version from the early twentieth century). Because of *pashto*'s characteristic lilting iambic movement from unstressed to stressed, and from high pitch to low pitch, the ambiguity of *rūpak*'s *sam* becomes an issue (is it notated as a *tālī* or a *khālī*?; and if the latter, then why are the subsequent *tālī*-s conventionally-notated as 2 and 3 instead of 1 and 2?).

Figure 9: The structures of *pashto* and (modern) *rūpak*, with Bhatkhande's *rūpak* for comparison.

Pashto (7)

Tin	–	tirakiṭa	Dhin	–	nā	nā
0			1		(2)	

Rūpak (7)

Tin	Tin	nā	Dhin	nā	Dhin	nā
0 (X)			2		3	

Bhatkhande's *rūpak* (KPM: vols.5/6)

dhā	Dhīñ	trika	Dhīñ	Dhīñ	dhā	trika
X			2		3	

Conclusions

23. I have tried to show how Hindustani music has undergone a sea change in temporal thinking, from agogic Sanskritic verse meter to quite different divisive, qualitative structures marked by fixed patterns that emphasize pitch and stress. Stewart emphasized the likelihood of links with the Arabic system through the *naqqāra* drum tradition, and while I would not dismiss this view, I suspect that ample evidence for a different kind of rhythmic/metrical thinking exists in folk models drawn from the tabla heartland of the North and Northwest of the Indian subcontinent. *Dhrupad's dhammār* is a case in point. Such a principle will come as no surprise to scholars of Karnatak music, since the common *cāpu tāla*-s are themselves derived from folk sources, quite unlike the primordial seven *tāla*-s (Nelson 2000: 144). There will be resistance to this view from those who would like to think that the tabla and its *tāl*-s are ancient and neatly accounted for by theory; they will likely feel uncomfortable when challenged with the notion that its rhythms emerged organically from the songs and dances of a category of women modern society now brands as disreputable.
24. Much more could be said, especially about *tāl*-s like *jhaptāl* and *jhūmrā* that, I would argue, have adapted (doubled) 2+3 and 3+4 folk-derived patterns to fit the standard four-*vibhāg tālī/khālī* format already described for sixteen-count *tāl*-s (and probably also for the twelve-count *ektāl*). More could be said also about the modern tendency to drive tempi to the extremes of the continuum, thereby altering the character of many of these *tāl*-s. That is a long story that will be the subject of future studies. One of the casualties for the tabla has been the loss of opportunity to swing and sway with the medium-tempo grooves of the folk, popular and semi-classical *ṭhumrī* genres: rhythmic realizations of the seductive, sensuous and erotic body and hand movements of the courtesan. Indeed, it mirrors the immense loss to Hindustani music culture of the courtesan herself.

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Figure 6: The structures of 8- & 16-mātrā tāl-s

Kaharvā (8)

dhā	ge	nā	Tin	nā	ka	Dhin	na
X				0			

Qavvālī (8)

dhā	Dhin	nā	traka	tā	Tin	nā	traka
X				0			

Dhamālī (8)

dhā	Dhin	dhā	Tin	traka	Dhin	dhāge	tirakiṭa		
X				(2)		0		(3)	

Tilvārā (16)

dhā	trkṭ	Dhin	Dhin	dhā	dhā	Tin	Tin	tā	trkṭ	Dhin	Dhin	dhā	dhā	Dhin	Dhin
X				2				0				3			

Cāncar (dīpcandī, jat) (16)

dhā	-	Dhin	-	dhā	dhā	Tin	-	tā	-	Tin	-	dhā	dhā	Dhin	-
X				2				0				3			

Ekvāī pañjābī (addhā) (16)

dhā	Dhin	-	dhā	dhā	Dhin	-	dhā	dhā	Tin	-	tā	tā	Dhin	-	dhā
X				2				0				3			

Pañjābī (sitār khānī, tappā) (16)

dhā	geDhīn	-ga	dhā	dhā	geDhīn	-ga	dhā	dhā	geTīn	-ka	tā	tā	geDhīn	-ga	dhā
X				2				0				3			

Dhīmā titāla (16)

Dhin	kiṭa	Dhin	nā	nā	Dhin	Dhin	nā	Tin	kiṭa	Tin	nā	nā	Dhin	Dhin	nā
X				2				0				3			

Tīntāl (16)

nā	Dhin	Dhin	nā	nā	Dhin	Dhin	nā	nā	Tin	Tin	nā	nā	Dhin	Dhin	nā
X				2				0				3			

Figure 6, continued...

Or, alternatively,

dhā	Dhin	Dhin	dhā	dhā	Dhin	Dhin	dhā	dhā	Tin	Tin	tā	tā	Dhin	Dhin	dhā
X				2				0				3			

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¹ I am aware that there is no universally accepted version of a *ṭhekā* for any *tāl* in *tabla* or *pakhāvāj* playing. There are stylistic differences between the various performance traditions, and tempo has a prominent role to play in how a *ṭhekā* is performed. Throughout this paper I will cite what I feel are the most common versions: they should be recognizable to most performers and scholars.

² I defer here to Harold Powers who recommends the use of "counts" instead of the more commonly found "beats", since the latter may be more usefully reserved for "metrical pulse". It will become clear that the "beat" does not always correspond precisely to the "count." (Personal communication.)

³ The Bhatkhande Sangit Vidyapith is a prominent affiliating and examining body that also prescribes degree syllabuses and course texts.

⁴ I am aware that considerable interest in diverse *tāl*-s exists in Pakistani Punjab, perhaps because the *pakhāvāj* featured prominently in the recent lineages of tabla players in and around Lahore. Furthermore, Pakistani writers on tabla such as Badr ul-Zaman (1991) have listed dozens of obscure *tāl*-s. His sources, I suspect, are mainly Indian, and it could be argued that he is unwittingly assisting with the "Hinduization" of *tāl*.