Notation: symbols & concepts: the saptak - the 'group of seven' slides & ornaments phrasing & accent text & tablature matras, vibhags & repeats laya numbering subscript & superscript returns & simile abbreviations

**Title** subtitle



SrRgGmMPdDnN S R G m P D N S - 1 / 1 \lambda 1 - \lambda

$$+ 2 \circ 3$$
 (())  $\times$   $-3 - 4_{x} \cdot 3_{x} \cdot 2_{x}$  &

**Above**, most of the symbols used in the notation.

Many of the basic concepts are similar to those of staff notation.

The **top row** of symbols: tala markings, slur indications, grace notes, triplet signs, etc.

The middle row of symbols:
repeat signs, bar lines, sargam (notes), gaps.

The bottom row of symbols:

loops (indicating beats), lyrics, instrumental strokes.

#### Notation Of Pitch

saptak - the 'group of seven'

The notation of pitch in Indian notation is fairly straightforward: each of the 12 semi-tones of the octave has a different symbol. These symbols are standard Roman letters, corresponding to the first letter of the note name, lowercase or capital, indicating the lower or higher form of the note.

The full note-names are:

Saraja, Rishaba, Gandhara, Madhyma, Panchama, Dhaivata, Nishada.

These names are shortened to Sa, Re, Ga, Ma, Pa, Dha, Ni when spoken.

The words Komal (soft), Tivra (strong), Shuddh (pure) are used to modify the note-names.

Re, Ga, Dha, Ni can be komal or shuddh.

Sa and Pa are never altered.

Only Ma can be shuddh or tivra.

The lower form of a note is written in lowercase letters, the higher in capital letters.

Sa and Pa are always written with capital letters.

Ornamental or optional notes are written as small superscript.

A dot below the note indicates the lower register - the mandra saptak.

A dot above the note indicates the higher register - the tara saptak.

Most music uses the range between low Pa and high Ga- i.e. P to G

The complete chromatic scale is written:  $SrRgGmMPdDnN\dot{S}$ 



**Sa**=C is the usual convention when translating to staff notation. Although any pitch may be used as **Sa**, instrumental music often uses C or C#.

#### Notation Of Pitch

slides and ornaments

Slides between notes (called mind or meend or mir) and ornamentation (generically called gamakas, of which there are many distinct types) push the limit of notation; while a general idea of the connection between notes can be shown, much of the interpretation must rely on experience and knowledge of style.

However, there are a few variables that can give a hint as to the intention of the notation.

A curve above indicates a slide or slur from one note to another:

The size of the notes indicates their relative importance:

Horizontal spacing indicates length:

$$\widehat{G} R G G^{RG} R G^{m}R$$

These are basically the same, though:

$$\widehat{G^RG}$$
  $\widehat{R}$   $\widehat{G^{RG}}$   $\widehat{R}$ 

Quick, abrupt 'attack' notes may be notated with a bracket.

This is also used in instrumental notation for an ornament called krintan or 'cut notes'.

A slow wavering of pitch, called andolan, is notated with a wavy line:

The same wavy line is used to indicate the ornament called gamak, produced by quick re-articulation of a note:

Slight variations in the shape and size of the curves and loops are unavoidable and should not be considered significant.

# Notation Of Phrasing

phrasing and accent

A straight line following a note indicates that it is held until the next note:

An apostrophe indicates a break, a place to take a breath:

$$s \longrightarrow \hat{SNRSN} \longrightarrow \hat{N} \longrightarrow$$

• An apostrophe can also delineate groupings and clarify patterns, where they might not otherwise not be clear. e.g., this:

# SRGRGmGmPmGR

is easier to interpret than this:

#### SRGRGmGmPmGR

• The first note of any group gets a slight emphasis, so this:

sounds different than this, even though they have the same notes:

• A comma may also be used to clarify sub-groupings in situations where two levels of grouping are called for:

- A comma or apostrophe do not mean a gap or pause, rather, they show grouping and accent.
- •An angle bracket is used to indicate a stronger accent:

• It is worth repeating that a line or dash does not mean a rest or silence. In general, every note should sound until the next, within reason.

# **Notation of Articulation**

text

The combination of sargam and text is simple: the syllable is placed beneath the note, and slurs are used to indicate multiple notes on one syllable:

$$\overbrace{M \ N \ D \ N}$$
 $\overbrace{DP} \ M \ D \ P \ M \ G}$ 
 $\overbrace{GP} \ - P \ -$ 

Sometimes, when many syllables are sung on one note, such as in this example,

it is both easier to read and write as:

When the music is to be sung on the syllable 'ah' (akar) the slurs are not necessary.

Continuing akar, or any other unchanging, predictable element may be indicated with an arrow:

When necessary to indicate sargam singing:

There are no examples of explicitly vocal music in this volume, but the same principles apply to notation of instrumental music.

## Notation of Articulation

# instrumental articulation symbols

Instrumental music uses a system of tablature to indicate how the strings are to be plucked. The specifics will be discussed in detail elsewhere: only the basics are covered here.

There are only three basic strokes and a few compound ones.

'Da' stroke is strong and notated with a vertical line.

'Ra' stroke is weaker and notated with a horizontal line.

'Chick' is a stroke on the chicari strings.

A rhythmic gap is indicated by a dot.

A da and ra stroke, in double tempo, on the same note, is called 'diri' and is indicated by an inverted vee.

There is some ambiguity and inconsistency as to when 'diri' and 'da ra' are used, verbally as well as symbolically. This will be discussed elsewhere, but it is important to note that this:

da dara dara dara daradadara

could equally well be notated:

and could be abbreviated:

## **Notation Of Articulation**

#### abstract music

Exercises, scales, and particularly the pieces of music called 'chalans' can be considered 'absolute' music— that is, they are not bound to any one method of production—they may be sung akar, in sargam, or played on an instrument.

So, in a chalan, this notation:

$$\widehat{PMDPMP} \longrightarrow \widehat{M - GR - GM - GG} G \longrightarrow$$

could be realized as:

The stereotypical bols of dhrupad alap could be used to enhance the articulation:

Or, it could be realized in a more instructive way, using sargam:

Or, in more detailed sargam:

Or, on a plucked instrument:

$$\checkmark \overrightarrow{PM} \overrightarrow{DPMP} - \checkmark \overrightarrow{M} \checkmark \overrightarrow{GR} - \checkmark \overrightarrow{GM} \xrightarrow{G} \checkmark G$$

# Notation Of Rhythm

#### matras

The basic unit of rhythmic notation is the matra, or beat.

A curved line, or loop, contains all the notes to be played in that matra.

If there is only one note (or rest) in a matra, the loop may be omitted.

A dash or dot is used to indicate gaps between notes.

Dashes and dots do not have a fixed length—their value must be inferred.

"Play **Sa** for one beat" can be notated a number of ways, depending on the context:

S

"Play **Sa** and **Re** in one beat," likewise:

§ R, §-R- §--R-- §···R···

"Play Sa for four beats" may also be notated a number of ways, depending on tempo, context and rhythmic density. The most common ways are:

used for very slow tempo, i.e. 8 notes/beat

used for slow tempo, i.e. 4 notes/beat

used for medium tempo, i.e. 2 notes/beat

used for fast tempo, i.e. 1 note/beat

A dash is **not** the same as a rest symbol in staff notation— it does not mean silence.

It is important to state that matra is not the same as 'pulse.'

The felt beat may be the same as the notated beat, but it may also be different— i.e. in slow tintal, there are 16 pulses, but fast tintal may be felt as four pulses—but both are considered to have 16 matras.

Roughly:

**Vilambit** (slow) is considered to mean one matra per pulse,

Madhya (medium) means two matras per pulse,

**Drut** (fast) means four matras per pulse.

# Notation Of Tala

# vibhags

Matras group together into vibhags, or measures.

Vibhags group together to construct Talas - one iteration of which is called an avartan.

With few exceptions, vibhags have two, three, or four beats.

Each vibhag in a tala has a distinct identity. Not all vibhags are the same.

There are three types of vibhag: sam, tali and khali.

Sam means 'together,' tali 'clap,' and khali 'empty.'

Sam means 'together' and is always the first beat of a tala, marked with a plus sign.

Tali means 'clap' and each tali is marked with a number—starting, usually, with 2, as sam also gets a clap.

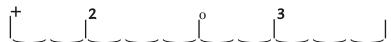
Khali means 'empty' and is indicated with a zero.

When clapping the tal, it is marked with a wave or a clap with the back of the hand.

Four vibhags of four matras comprise tintal:



Jhaptal has a similar structure but with alternating two and three matra vibhags:



Often, the notational details of the tala are redundant and may be omitted.

For example, in many situations, the tali numbers and matra loops are unnecessary:

Fast jhaptal may be notated as two measures of five:

Rupak tal, when slow, is notated as 3+2+2:



(This is the one case in which sam and khali are the same— so the first tal is marked with a 1.)

Faster, it may be notated as 3+4, or even as one measure of 7:

In general, this manual tries to keep the notation, particularly of the tala, as simple as possible without introducing ambiguity.

### **Notation Of Structure**

## repeats

There are three types of repeat, with a different symbol for each.

Their hierarchy may be thought of as:

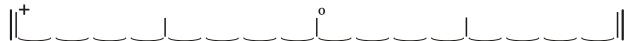


The outermost symbol, the brackets, means a repeat of several lines or a whole section. This type of repeat is uncommon and may be considered optional, when its omission would not disturb the integrity of the tala:



The double-line symbol indicates a repeat of a whole cycle or a few measures.

Unless otherwise indicated, it means 'play twice':

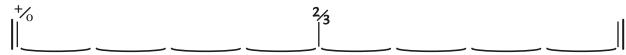


The double-line repeat symbol may or may not coincide with the bar lines.

In this example, the line starts on the third beat, in the middle of a measure:



Two measures of four beats, repeated - starting on sum the first time, khali the second:



Two measures of four beats, repeated - starting on the last beat of the khali measure:



In the last two lines, note the symbols indicating the tal orientation:

'sum first time, khali second time' etc.

# Notation Of Structure

## repeats 2

The third type of repeat, the parenthesis, is the most versatile.

It always has an indication of how many times the material within the parenthesis is to be repeated.

$$\left( \begin{array}{cccc} \\ \end{array} \right)_{2_x} \quad \left( \begin{array}{cccc} \\ \end{array} \right)_{3_x} \quad \left( \begin{array}{cccc} \\ \end{array} \right)_{4_x}$$

• It is used when the phrase to be repeated is an odd number of beats long:

$$\begin{pmatrix}
1 & 2 & 3 & 4 & 5 \\
1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 9 & 10 & 11
\end{pmatrix}_{2_{x}}$$

• When the number of repeats is other than two:

$$\left(1 \quad 2 \quad 3 \quad 4\right)_{5_x}$$

• It can split matras:

• When the number of beats repeated is not a whole number, a 'broken' matra is used:

$$\begin{pmatrix}
1 & 2 & 3 & 4 & 5 \\
2 & 3 & 4 & 5 & 6 & 7 & 8 & 9 & 10 & 11 & 12 & 13 & 14
\end{pmatrix}_{2_x}$$

• It can also be nestled:

$$\left( \left( \underbrace{1 \ 2 \ 3 \ 4 \ 5}_{3_{x}} \right) \underbrace{6 \ 7 \ 8 \ 9 \ 10 \ 11 -}_{3_{x}} \right)_{3_{x}}$$

# Notation Of Structure

repeats 3

Here are some examples of how these repeats are used, all in tintal:

Ascending and descending scale, one note per beat:

$$\parallel^{+}_{S}$$
 R G m  $\parallel$  P D N  $\dot{S}$   $\parallel^{\circ}_{S}$  N D P  $\parallel$  m G R S  $\parallel$ 

Same thing, double speed:

Ascending and descending scale, no notes repeated, four and a half times:

$$\left\| \left( \underline{SRGmPDNSNDPmGR} \right) \right\|_{4_{v}}^{3} \underline{SRGmPDNS} \right\|$$

- the tala is shown only minimally to avoid clutter and confusion.
- note that the phrase is two cycles long, even though it appears as one.

Four notes, then five, then six, repeated - and two more to complete the cycle:

$$\left\| \left( \underbrace{SRGm} \right)_{2_{x}}^{2} \left( \underbrace{SRGmPD} \right)_{2_{x}}^{2} \left( \underbrace{SRGmPD} \right)_{2_{x}}^{2} \right\|$$

• This one could also be notated as 4,4,5,5,6,8:

$$\left\| \left( \underbrace{SRGm} \right)_{2_{x}}^{2} \left( \underbrace{SRGmPD}_{2_{x}}^{2} \underbrace{SRGmPD}_{2_{x}}^{3} \underbrace{SRGmPD}_{2_{x}}^{3} \right) \right\|$$

A phrase of eleven beats, divided 4,4,3 - repeated three times: On the third repetition, the eleventh beat falls on sum.

$$+\left(\left(\underbrace{SRGmP---\right)}_{2_{x}}\underbrace{SRGm^{+}P-}_{2_{x}}\right)_{3_{x}}$$

• This type of line is called a tehai. More about them elsewhere.

# Notation Of Rhythm

laya

The word laya or lay is usually translated as 'tempo,' or 'speed,' but there are two facets of rhythm denoted by laya: absolute tempo (beats/minute) and relative tempo (notes/beat).

The first of these is what is denoted by vilambit, madhya, drut, i.e., 'slow, medium, fast.' The details of how these terms are used is discussed elsewhere.

The second of these, that of rhythmic density, is notated somewhat like staff notation:

- One, two, four, & eight notes-per-matra require no special demarcation.
- Other layas require some marker, especially when they start:

$$||\overline{SSSRRG}-m-m-GGGmmmG-R-G-||$$

$$||SSSRRRG-m-m-GGGmmmG-R-G-||$$

$$||SRGmPDNS'SNDP|mGRS'SR|GmPDNS||$$

$$(\overline{SRGmPDN})$$

$$(\overline{SRGmPDN})$$

• To avoid clutter, the barlines may be omitted:

• When a phrase is in free rhythm, strict adherence to the matras is unnecessary, and a loose 'proportional' style is used:

$$|\underbrace{\overset{3}{-}P^{D}N-\overset{D}{-}P-\overset{'}{-}\overset{DP}{-}D}-\overset{P}{m}-\overset{'}{-}\overset{M}P^{DP}-|\overset{P}{-}\overset{P}{-}G} \&$$

$$\parallel s - s R G - s R G m - P m G R \parallel$$

# Notation Of Rhythm

Chapter 1: notation

laya 2

Usually it is preferable, but not absolutely necessary, to keep the units-per-beat consistent for all beats in a measure. When there are several ways to notate a given line, readability must be given preference.



|| SRG - mGRS|| <--- compact but confusing

|S - R - G - - - - mGRS|| <— easy to read, equal time gets equal space perhaps too much detail

SRG-\_-mGRS||<--- probably best: simple and unambiguous



||SRGmmmGRSS|| <--- hard to read, possibly confusing

||S-R-G-m-m-m-G-R-S-S-||<--captures the 'feel' better



|| S R G mPDN S·SS·SS·|| <--- compact but misleading

 $||\underline{S} - - \underline{R} - \underline{G} - \underline{m} \underline{P} \underline{D} \underline{N} \underline{\mathring{S} \cdot \mathring{S} \mathring{S} \cdot \mathring{S} } \cdot || \leftarrow$  easier to read

 $||\underline{S} \cdot \cdot \cdot \cdot \cdot R \cdot \cdot \cdot G \cdot \cdot \cdot m \cdot P \cdot D \cdot N \cdot \dot{S} \cdot \dot{S} \dot{S} \cdot \dot{S} \dot{S} \cdot ||$  < too much unnecessary detail

# Notation Of Structure numbering

Compositions have a more-or-less complex structure, and are comprised of discrete lines.

There are different kinds of lines— but the basic division is that of themes & lines which depart from and return to a theme.

Each separate line gets a number.

A line may be long or short; may be unitary or have its own internal repeat structure. Nearly all lines end with a return to the first line, the theme.



When necessary, the internal parts of lines may be referred to by letter.

2) 
$$\begin{vmatrix} + \\ - \\ - \\ - \end{vmatrix}$$
  $\begin{vmatrix} - \\ - \\ - \end{vmatrix}$   $\begin{vmatrix} - \\$ 

A letter may be used to indicate alternate readings of a line, or slight variations which do not merit a separate number:

The use of the ditto marks is as one would expect.

## Notation Of Structure

subscript & superscript

When the end of a repeated line is different the last time around or changes when it segues into another line, it may be indicated by small subscript:

Superscript may be used to indicate an alternative reading of a line:

Or to give some ideas about possible ornamentation:

Hint: play it the straight way the first time, the ornamented or varied way the second time.

## Notation Of Structure

returns, arrows and asterisks

& (ampersand) means 'return to the theme.'

Note that when there are several ways to return, it does not indicate which one is called for; that may be clear from the context, or indicated elsewhere in the notation.

The **arrow**, or 'go on to the next line from here' symbol clarifies situations where there is an overlap of two lines. The most common instance of this is when a tehai is used to return to the theme:

Something written out completely like this:

may be clearer when written:

An exaggerated example, written out completely:

Abbreviated:

$$|^{+}(S R G m^{+}P -)_{3_{x}}|^{+}(P m G R^{+}S -)_{3_{x}} & \varepsilon_{T}$$

'Sa Re' is only three times in this:

The use of the **asterisk** \* or 'this is the place' symbol is similar to it's use in text—as a courtesy reference.

Normally, there will be two: the first, usually in the gat, marks the place where a subsequent line will either begin or re-enter the theme, and a second one, either at the beginning or end of a later line.

### **Abbreviations**

simile

This symbol is borrowed from staff notation, but serves a wider range of meanings than in a typical Jazz chart.

The simile, or 'same way' symbol is used to simplify the reading and writing of patterned, repetitive passages. It has to do with how patterns are applied to one another. For example, this:

$$|\overset{+}{G}Pm--m-m|RmG--G-G|\overset{\circ}{S}GR--R-R|NRS--S-S|$$

is more simply represented:

That is, the rhythmic pattern shown in the first measure is replicated on the following sets of notes.

In many cases, only the first note of the subsequent patterns need be

is more simply represented:

This sort of thing is obvious:

$$|\overset{+}{S} \checkmark \checkmark S \checkmark \checkmark S \checkmark \checkmark \checkmark |\overset{+}{R} - \overset{+}{\sim} |\overset{+}{G} - \overset{+}{\sim} |\overset{+}{m} - \overset{+}{\sim} |$$

The same thing could be notated:

Or, even more compressed:

Sometimes, the continuation of an element is so obvious that the simile sign is unnecessary. For example, this:

could be notated:

$$|\stackrel{+}{M} \stackrel{D}{N} \stackrel{\dot{S}}{N} \stackrel{|N}{-} - - |\stackrel{\circ}{N} \stackrel{D}{N} \stackrel{\dot{S}}{N} \stackrel{|N}{D} \stackrel{P}{-} |$$

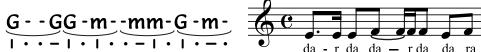
i.e. diri diri (or whatever the bol pattern is) continues until another pattern is introduced.

## Abbreviations Of Tablature

# things typical of instrumental music

In the notation of instrumental, (sitar and sarode) music, some habits in the putting together the bols and notes that may look confusing when written out in great detail; dropping the requirement that every note have a bol and vice versa can make for more readable notation.

One common example of this is something like this, which, when written in detail, looks complex:



It consists of two elements:

the sequence of notes: Ga - - ma - - Ga ma

the bol pattern: da-rda da-rda dara

These are combined: da-rda on Ga; another da-rda on ma; then da ra on Ga ma.

In simplified notation:

All the information necessary to interpret the line correctly is there, but there seems to be a logical inconsistency: there are eight symbols in the upper line (notes and gaps) but ten in the lower line (strokes and rests).

These may clarify:

The short **ra** stroke is only half as long as the other strokes.

Another way of looking at it is to say that the Da stroke (and the long Ra) are 'inherently' twice as long as the short ra.

The issue is confused by the fact that the note played on the short **ra** stroke is not always unambiguously defined: it may be the same as the note before or the one after, if those two are different. For example, this:

could be interpreted:

# **General Comments On Notation** stuff

A few things about notation to keep in mind:

- Some things in the notation are subjective and arbitrary: line numbering, what and how much to abbreviate and which type of repeat brackets are used, in particular, have little to do with the things they refer to.
- •Many things, such as arrangement (i.e., the number of times each line is played, how many repetitions of the theme between variations), ornamentation, and tempo are not absolutely fixed and may vary according to situation and the skill of the performer. Within a few basic parameters, there is some latitude in the details of how the music is interpreted and rendered.
- The notation is not the music— while visual, symbolic notation can be useful, it is no substitute for actual knowledge, and presupposes some understanding of the music notated.
- The material in this book was composed and taught over several decades, in a variety of settings, and for a wide range of students. Its collection and notation also occurred over a period of years, during which ideas of exactly how to represent things have evolved—slight variations in such things as spacing, line weight, and shape of curves in matras and slides should not be considered significant.
- Defaults— as in any system, there are things which are better left to the discretion of the performer— e.g., things such as what bol to play in medium tempo scale passages: on sitar, **dara** would be the first choice, on sarode all **da** would be the choice, and bowed instruments, whatever bowing gives the most even articulation. This is one reason the notation may seem at times vague— details of the execution are often left up to the performer and may vary according to instrument and performer's ability.

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