THE JOURNEY OF A THOUSAND MILES BEGINS WITH ONE STEP.

Berklee college of music

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music

Online education in music

- This was my thesis for my previous masters.
- Previous research by Enrich Alberich
- An opportunity to go in-depth presented itself
- But. . .

AN EVALUATIVE STUDY OF THE CURRENT PRACTICES IN SYNCHRONOUS ONLINE EDUCATION FOR INDIAN CLASSICAL MUSIC

A DISSERTATION

Submitted by

M.T.ADITYA SRINIVASAN

ROLL NUMBER: 200872701

to the

FACULTY OF DEPARTMENT OF MEDIA SCIENCES

in partial fulfillment for the award of the degree

of

MASTER OF SCIENCE

in

ELECTRONIC MEDIA (5 YRS INTEGRATED)

DEPARTMENT OF MEDIA SCIENCES

ANNA UNIVERSITY

CHENNAI 600025

MAY 2013

The birth of an Idea . . .

Can my musical background contribute to the compositional and improvisational growth of my western counterparts ?

SOLO

1729

Ear Training

Going beyond the bar

how can I generate maximum impact !

Can I contribute to my own musical tradition in the process ?

Passion

Goal

Strengths

The best thing I can bring to the table is something that combines my passion for teaching and sharing mind space , with my background and love for rhythm

Calculation

Application

Inspiration

SEVERAL MILES TO RAMANUJAM

A STUDY IN THE APPLICATION OF INDIAN RHYTHMIC CONCEPTS FOR WESTERN MUSICIANS

A mathematical approach to thinking beyond the bar

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A lot of relevant information has been left out of this presentation keeping time in mind. But it can all be read in the submitted document.

Objective

The primary objective of the study is to develop a syllabus and material for Indian rhythmical ideas to be taught as a structured course to students at music universities.

To understand how Indian rhythmic compositions can be transcribed into western notation without compromising their aesthetic quality.

To write compositions in western notation in such a way that the original mathematical and poetical beauty will remain intact even when the transcriptions are sight-read without prior context.

To develop a written repertoire of compositions that creates a foundation for rhythmic interaction for musicians from other traditions with Indian musicians.

To identify rhythmic structures and ideas that is useful as compositional, performance ideas for other genres of music (with specific reference to jazz).

To understand, identify and incorporate Indian rhythmic exercises that are beneficial to western musicians in the context of structured course work.

To learn how to teach these concepts as a course for western musicians with little or no prior exposure to Indian classical music, by understanding different approaches to learning rhythm.

Need for Analysis

Challenge 1: I needed a hands on understanding of how western musicians approached Indian musical concepts.

Challenge 2: I needed to learn to notate compositions in such a way that they weren't reduced to paper

Challenge 3: I needed to critically analyze similar endeavors in three categories - by western musicians & scholars, by Indian musicians & scholars and by students of both traditions.

The Ship of Theseus

- This is something that emerged out of reflection on the project, but for the sake of this presentation it is discussed at this stage
- The ship of Theseus, also known as Theseus' paradox, is a thought experiment that raises the question of whether an object which has had all its components replaced remains fundamentally the same object
- Do the contents and concepts of this project remain Indian classical, that is, are the participants indulging in Indian music or …

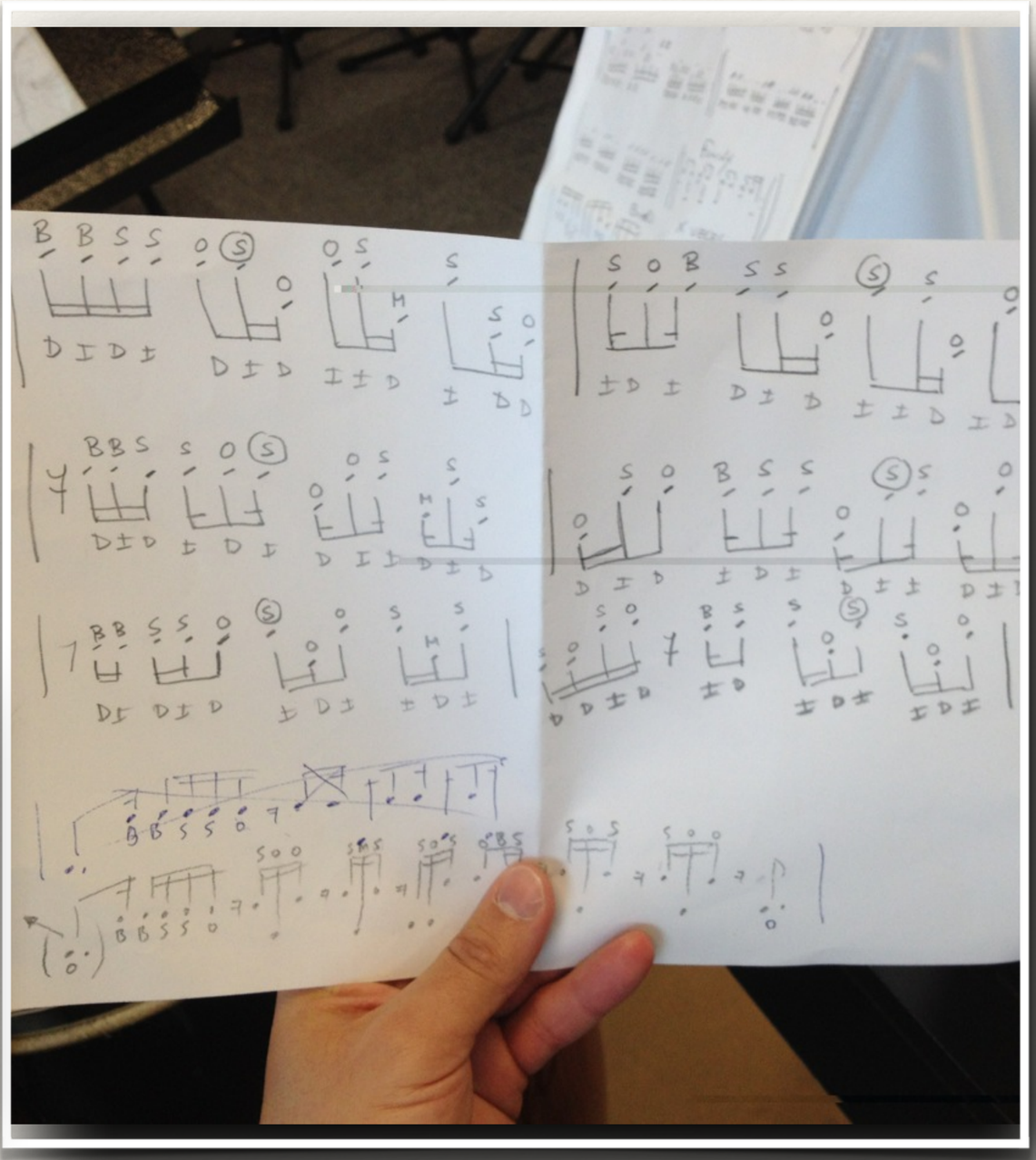
Darbar

My so called complicated rhythmic background was reduced to mere quarter notes, eighth notes and rests

The Ego Crusher

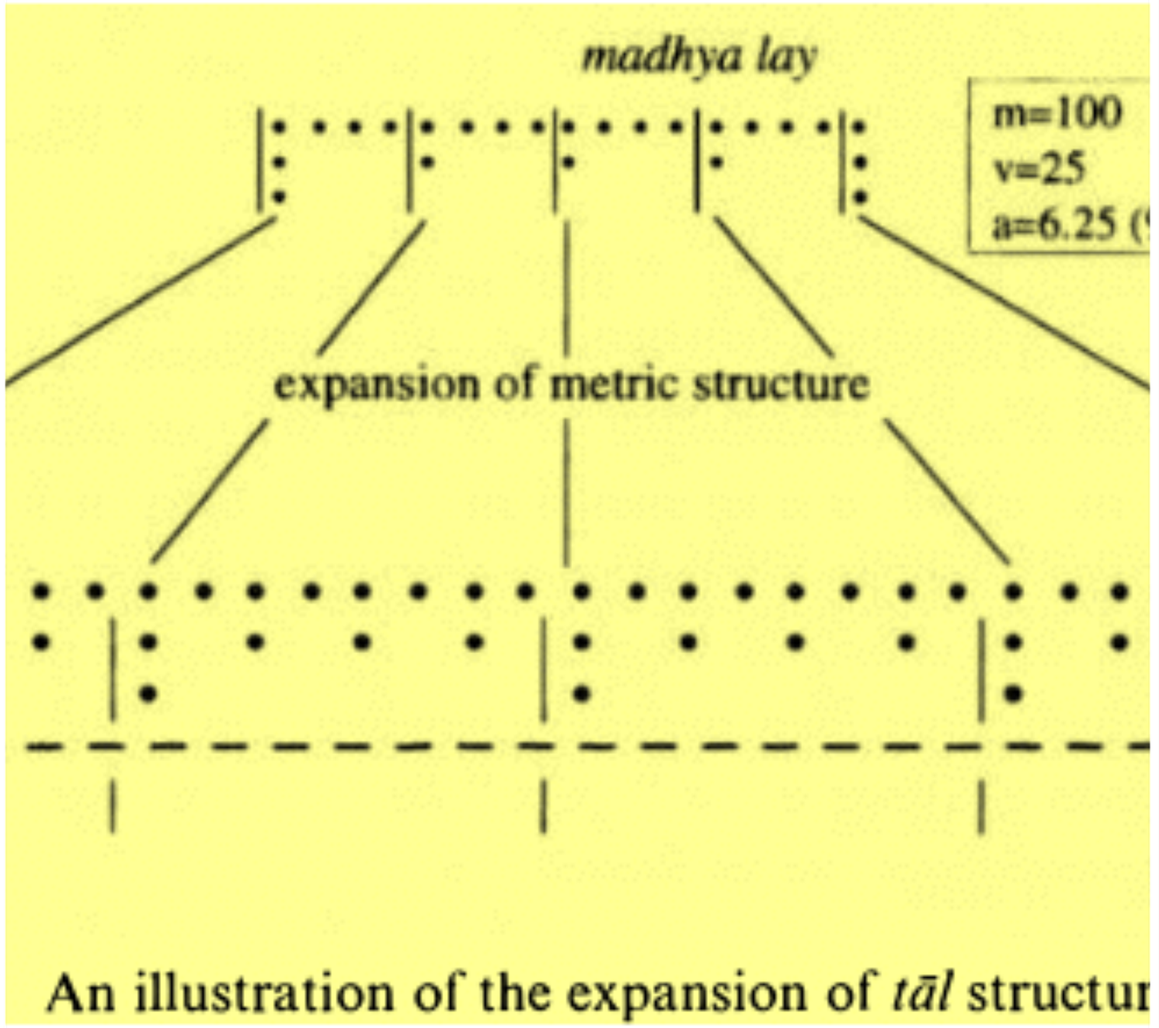
Step 1: Learning to write and transcribe traditional Indian rhythmic compositions.

Challenge: Making an entirely oral tradition relevant to a written document.

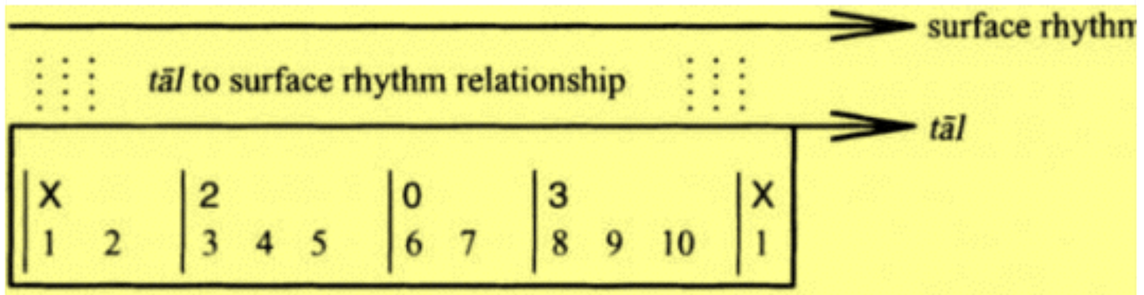


Critical Analysis of similar endeavors

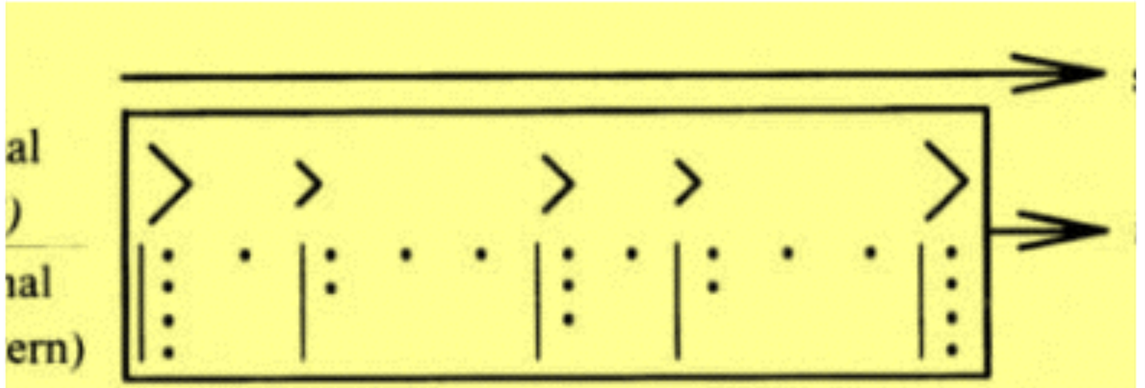
- Analysis of books on the subject matter such as Sangeeta Akshara Hridaya, Indian rhythms for the drum set, Time in Indian classical music etc
- Analysis of video tutorials of different artists from both western and Indian traditions such as John McLaughlin, Ghatam Kartik, Pete Lockett, Steve Smith, Umayalpuram Sivaraman etc
- Reading of published research articles and other scholarly work on related areas
- Detailed discussions with Berklee professors Allan Chase, Yoron Israel, Enrich Alberich etc
- Transcription of material from all of these sources to incorporate into the proposed course work
- Understanding the scope of such concepts and analyzing their application across the musical spectrum



An illustration of the expansion of *tāl* structur



PLE **4.2** A theoretical model for rhythmic organization, incorporating *tāl* nship with surface rhythm



An illustration of a unified model of rhythmic organiza itative (durational) and qualitative (accentual) hierarch

FIGURE 1

A Sixteenth-Note Phrasing

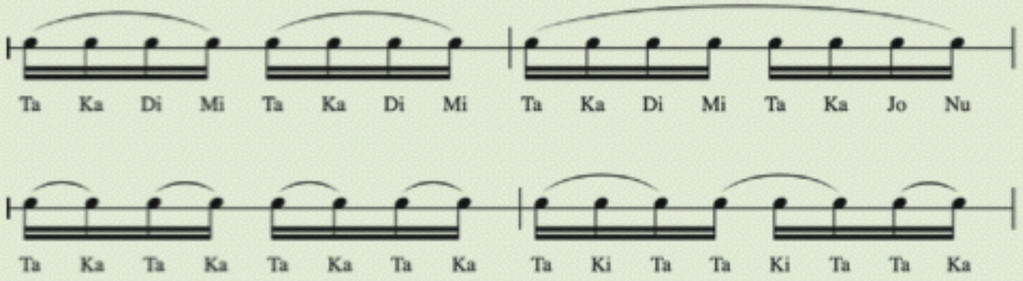


FIGURE 2A

A 5/8 Phrasing

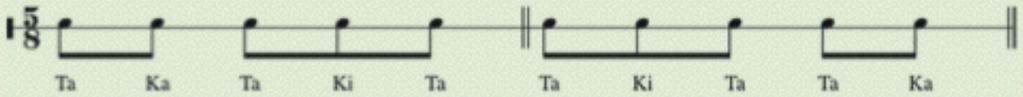


FIGURE 2B

A 5/8 Phrasing

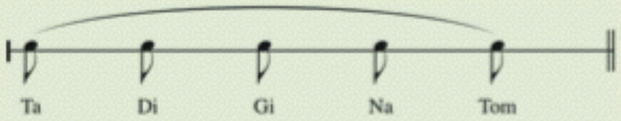
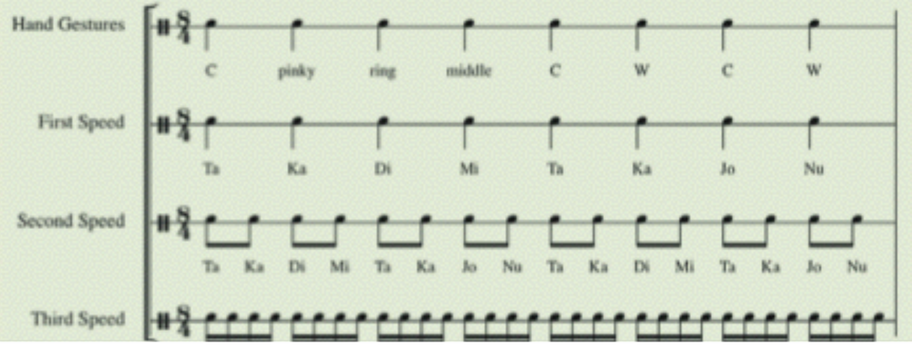
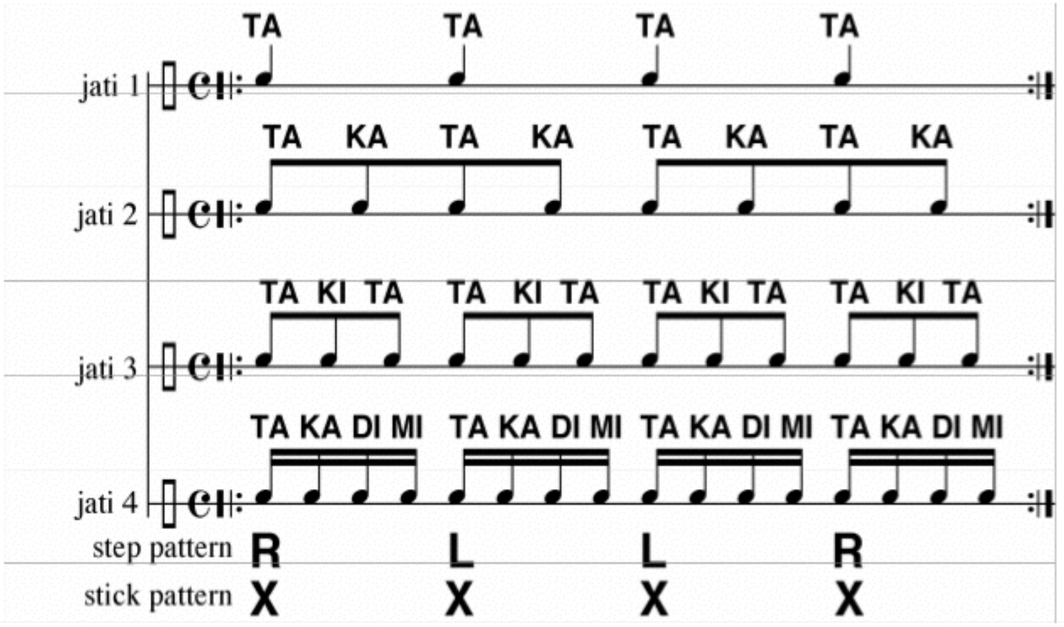


FIGURE 6

An 8/4 Trikala



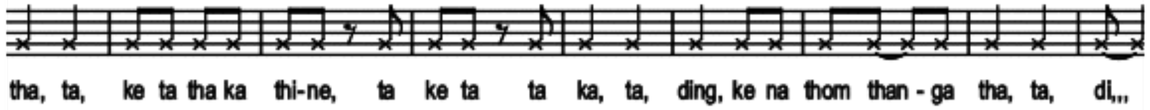


laya rathna (time shifting) metric modulation

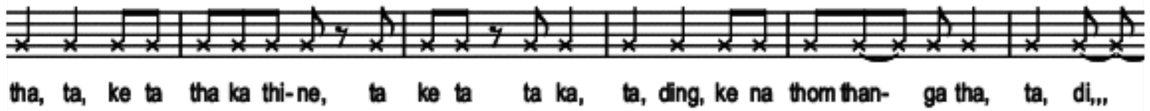
As performed on Track 16 of accompanying audio
Bar time duration remains constant

© Karai
notated by L

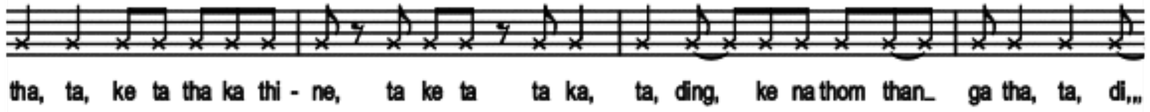
= 120 ***first speed chathusram (4)***



= 180 ***second speed thisram (6)***



= 270 ***third speed sangeernam (9)***



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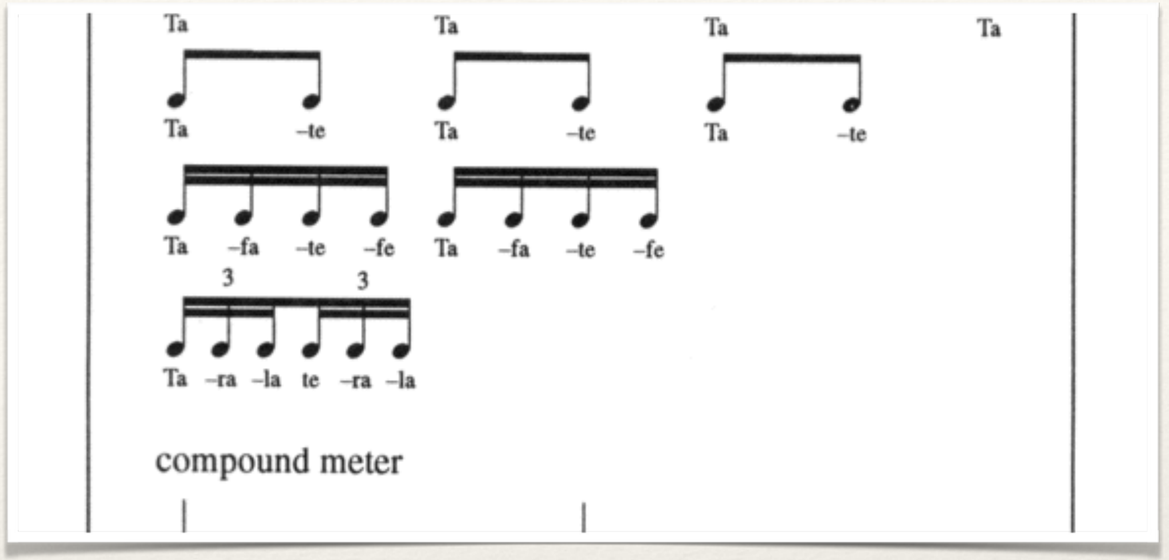
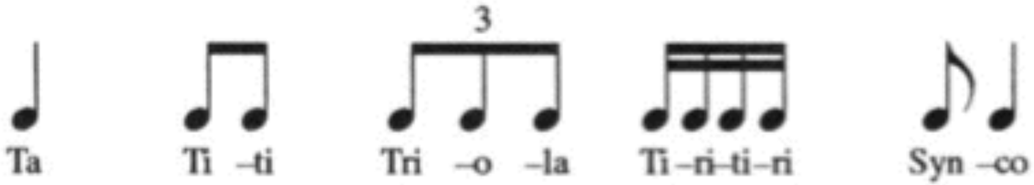
gure 4 Using western rhythmic notation for three speed exercise of Track 16



re 2. Kodály system of rhythm syllables



Common elements from analysis

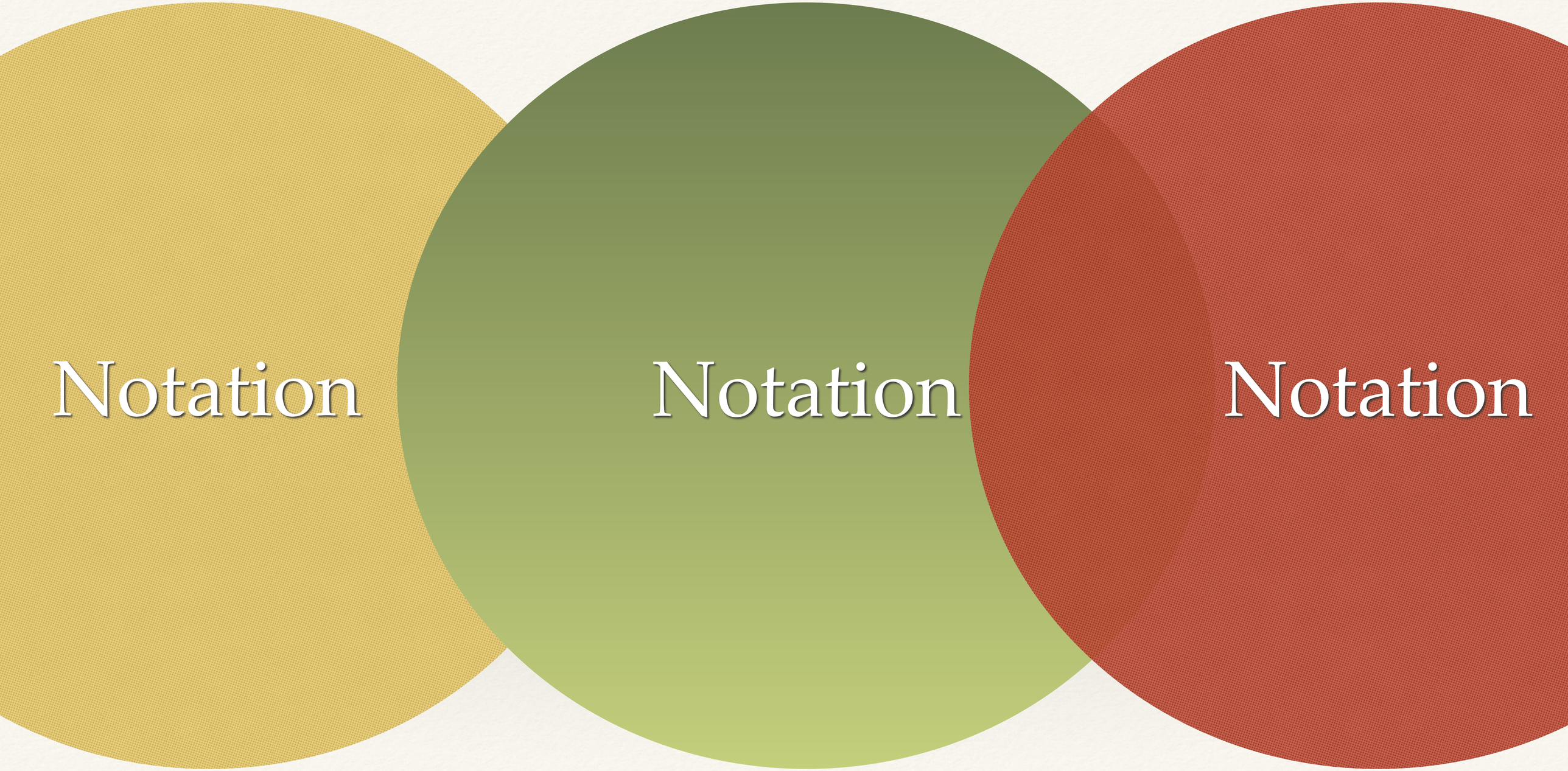
- Westerners approach vs Indians
- Majority designed for percussionists
- Limited notation - often requiring knowledge of Indian music
- No coherent pathway of growth
- Limited application of concepts outside of context
- South Indian system favored over north
- No effective standard for notation of poetry

Western vs Indian musical conceptualization

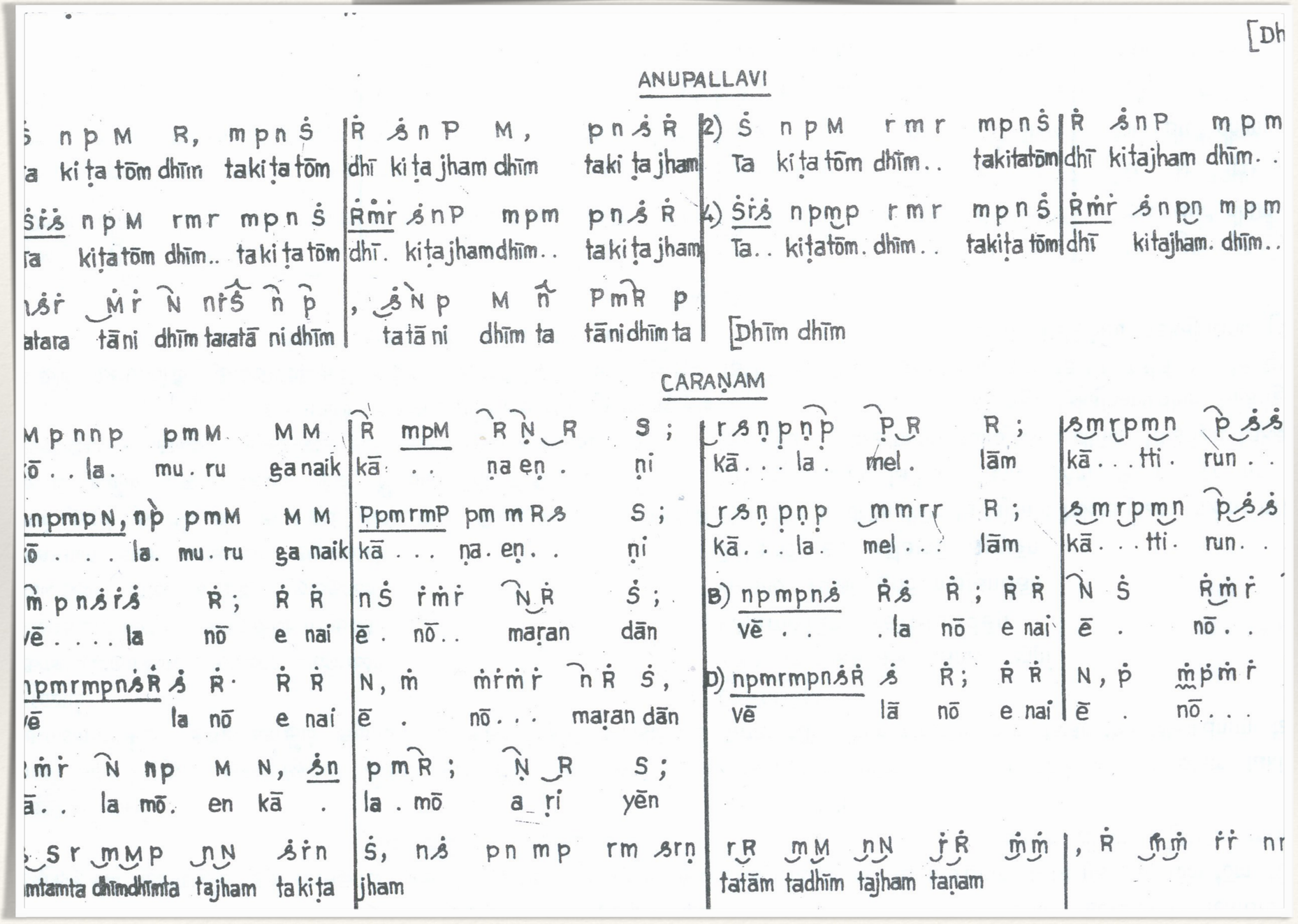
- Kritis or bandishes vs Jazz standards
- Tala, laya, meter and the bar: Rhythmic organization of time
- Linear and non-linear and cyclicality of the timeline
- Oral vs written tradition: Notation ! Notation ! Notation !
- Eric Harland's approach to rhythmic development in drum solos
- Poetry in rhythm
- Recognition of phrases and patterns beyond the bar

Thillanas in Jazz

- Adapting Indian ideas to Jazz isn't anything new, but I wanted particular melodic and rhythmic ideas to be captured in a way they haven’t been done before.
- Why **Thillanas** ? The tillana is a distinct compositional form in Carnatic music that has highly precise mathematical development bothmelodically and rhythmically. It seemed the natural direction for this project.
- Thillanas chosen are those by 20th-21st century composers Shri Balamuralkrishna and Lalgudi Shri Jayaraman, regarded as the finest every composers of thillanas.


Notation
Notation
Notation

Notation ! Notation ! Notation !



[Dh

ANUPALLAVI

ṡ n p M R, m p n ṡ | Ṙ ṡ n P M, p n ṡ Ṙ | 2) Ṡ n p M r m r m p n Ṡ | Ṙ ṡ n P m p m
ta ki ṭa tōm dhīm taki ṭa tōm | dhī ki ṭa jham dhīm taki ṭa jham | Ta ki ṭa tōm dhīm.. takiṭatōm | dhī kiṭajham dhīm..

Ṡṙṡ n p M r m r m p n ṡ | Ṙṁṙ ṡ n P m p m p n ṡ Ṙ | 4) Ṡṙṡ n p m p r m r m p n Ṡ | Ṙṁṙ ṡ n p n m p m
Ta kiṭatōm dhīm.. takiṭa tōm | dhī. kiṭajhamdhīm.. takiṭajham | Ta.. kiṭatōm. dhīm.. takiṭa tōm | dhī kiṭajham. dhīm..

ṅṡṙ Ṁ ṙ N nṙṠ n p , ṡ N p M n P m R p | [Dhīm dhīm
atara tāni dhīm taratā ni dhīm | tatā ni dhīm ta tāni dhīm ta

CARAṆAM

M p n n p p m M M M | R mpM R Ṇ R S ; | r ṡ ṇ p ṇ p P R R ; | ṡ m r p m n p ṡ ṡ
kō . . la. mu. ru ga naik | kā . . ṇa eṇ . ṇi | kā . . . la . mel . lām | kā . . . tti . run . .

n p m p N, n p p m M M M | P p m r m P p m m R ṡ S ; | r ṡ ṇ p ṇ p m m r r R ; | ṡ m r p m n p ṡ ṡ
kō . . . la. mu. ru ga naik | kā . . . ṇa. eṇ. . ṇi | kā . . . la. mel . . . lām | kā . . . tti. run. .

m p n ṡ ṙ ṡ Ṙ ; Ṙ Ṙ | n Ṡ ṙ m ṙ Ṇ Ṙ Ṡ ; | B) n p m p n ṡ Ṙ ṡ Ṙ ; Ṙ Ṙ | Ṇ Ṡ Ṙ m ṙ
vē . . . . la nō e nai | ē . nō . . maṛan dān | vē . . . la nō e nai | ē . nō . .

n p m r m p n ṡ Ṙ ṡ Ṙ . Ṙ Ṙ | N, m ṁ ṙ m ṙ n Ṙ Ṡ , | D) n p m r m p n ṡ Ṙ ṡ Ṙ ; Ṙ Ṙ | N, p ṁ ṗ ṁ ṙ
vē la nō e nai | ē . nō . . . maṛan dān | vē lā nō e nai | ē . nō . . .

ṙ ṁ ṙ Ṇ n p M N, ṡ n | p m R ; Ṇ R S ;
ā . . la mō. en kā . | la . mō a ṛi yēn

Ṡ r m M P n N ṡ ṙ n | Ṡ, n ṡ p n m p r m ṡ r n | r R m M n N ṙ Ṙ ṁ ṁ | , Ṙ ṁ ṁ ṙ ṙ n r
mtamta dhimdhīmta tajham takiṭa | jham | tatām tadhīm tajham taṇam

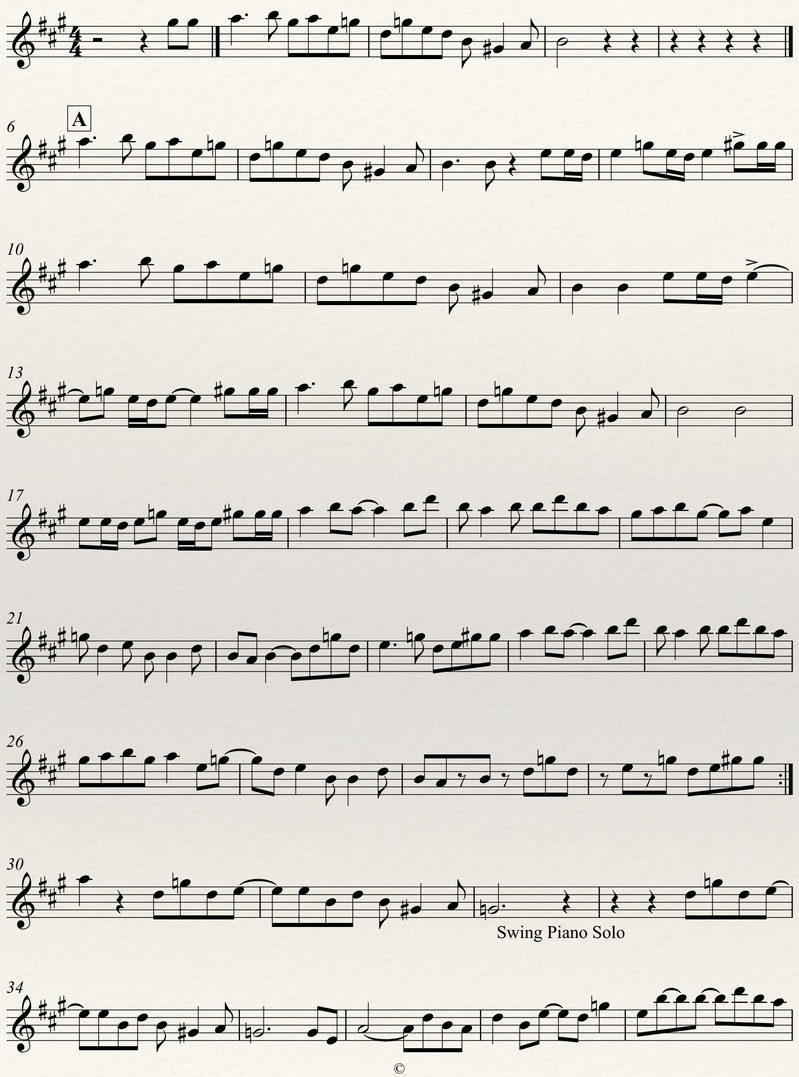
Notation ! Notation ! Notation !

Brindavani Thillana

Rumba

Ricardo and MT

Rubato Opening Solo in Raga Brindavani Sarang



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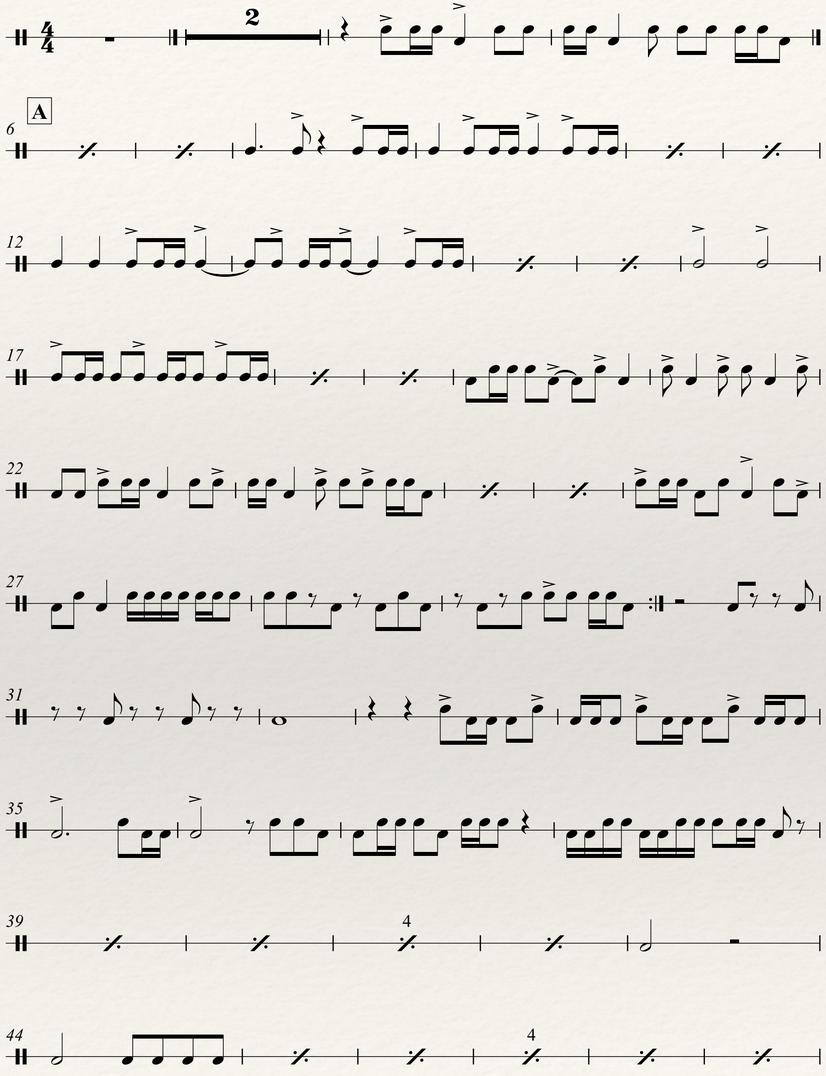
1

Brindavani Thillana
Rumba

1

Ricardo and MT

Rubato Opening Solo in Raga Brindavani Sarang



©

What was recorded

- 3 Thillana based compositions arranged by Ricardo Curto and Myself
- 1 Thillana based composition composed by me and arranged by Stephen Mchale
- 2 Thillanas yet to be recorded, arranged by Juan Aliaga, Andjela Stevanovic and myself
- 1 Thillana arranged by Ricardo Curto and myself is being played in Perico Sambeat's ensemble

Observations based on Thillanas

The clave on the mand thillana
Moving beyond the bar with the revathi thillana
The melodic storyline with the Kalyani thillana
Breathing space for wind instruments
Harmony outside the raga
Identifying phrases rather than bars
It did not survive the ship of theseus
Different approaches to rhythmic accompaniment
Does every jazz piece require a solo in the traditional sense
Cadences and Codas - identifying patterns to incorporate into the course work
Developing myself as a project manager and producer

How the analysis shaped the project

- The words of the scholars are as important as the exercises themselves
- The thillanas helped me understand how Indian rhythmic concepts were approached
- Every exercise suggested have been analyzed and relevant ones included within the proposed coursework
- The course is not meant to survive the ship of theseus, that is, it is not a study of Indian rhythms, but just an extrapolation of Indian concepts modified for western musicians
- Every effort has been made to incorporate the good aspects of previous works

How the analysis shaped the project

- Every exercise in the course needs to have executed examples alongside
- Each exercise will be provided in mathematical format, western notation and some applicational ideas. It will be insisted on that the written document purpose is posterity.
- The classes within the course will include actual playing of exercises on instruments

Course design

- The course design takes into account analysis plus trial execution of the project
- It is designed in 15 phases to develop a strong rhythmic foundation
- Audio/video examples for every exercise plus in class and homework activities designed for each stage

5 - Tha dhi gi na thom
6 - Tha dhi . gi na thom
7 - Tha . dhi . Gi na thom
9 - Tha . dhi . gi . na. thom

As you will notice, from 5 onwards, the syllables are the same, it is only the spacing (gap inbetween) syllables that chances.
A standard method of counting gap between notes is to enunciate the gap, to increase convenience of recitation . A gap of a beat + 2 counts is denoted as **Thangu** (3 counts total).
A gap of a beat + 1 count (2 counts total) is denoted as **tham**.

Endings for one avarthana of a Adi Tala (with just a few additional possibilities)
1 , 2 , 3 , 4 , 5

6 - 2+2+2
7 - 1+2+1+2+1
8 - 2+1+2+1+2
9 - 3+3+3
10 - 2+2+2+2+2
11 - 3+1+3+1+3
12 - 2+3+2+3+2
13 - 3+2+3+2+3
14 - 4+1+4+1+4
15 - 5+5+5
16 - 4+2+4+2+4
17 - 5+1+5+1+5
18 - 6+6+6
19 - 5+2+5+2+5
20 - 6+1+6+1+6
21 - 7+7+7 = 5+3+5+3+5
22 - 6+2+6+2+6
23 - 7+1+7+1+7 = 5+4+5+4+5
24 - 6+3+6+3+6
25 - 7+2+7+2+7
26 - 8+1+8+1+8 = 6+4+6+4+6
27 - 9+9+9 = 7+3+7+3+7
28 - 8+2+8+2+8
29 = 9+1+9+1+9 = 7+4+7+4+7
30 = 10+10+10=8+3+8+3+8=6+6+6+6+6=4+6+4+6+4+6
31= 7+5+7+5+7 = 9+2+9+2+9
32 = 8+4+8+4+8=10+1+10+1+10

What will you gain ?

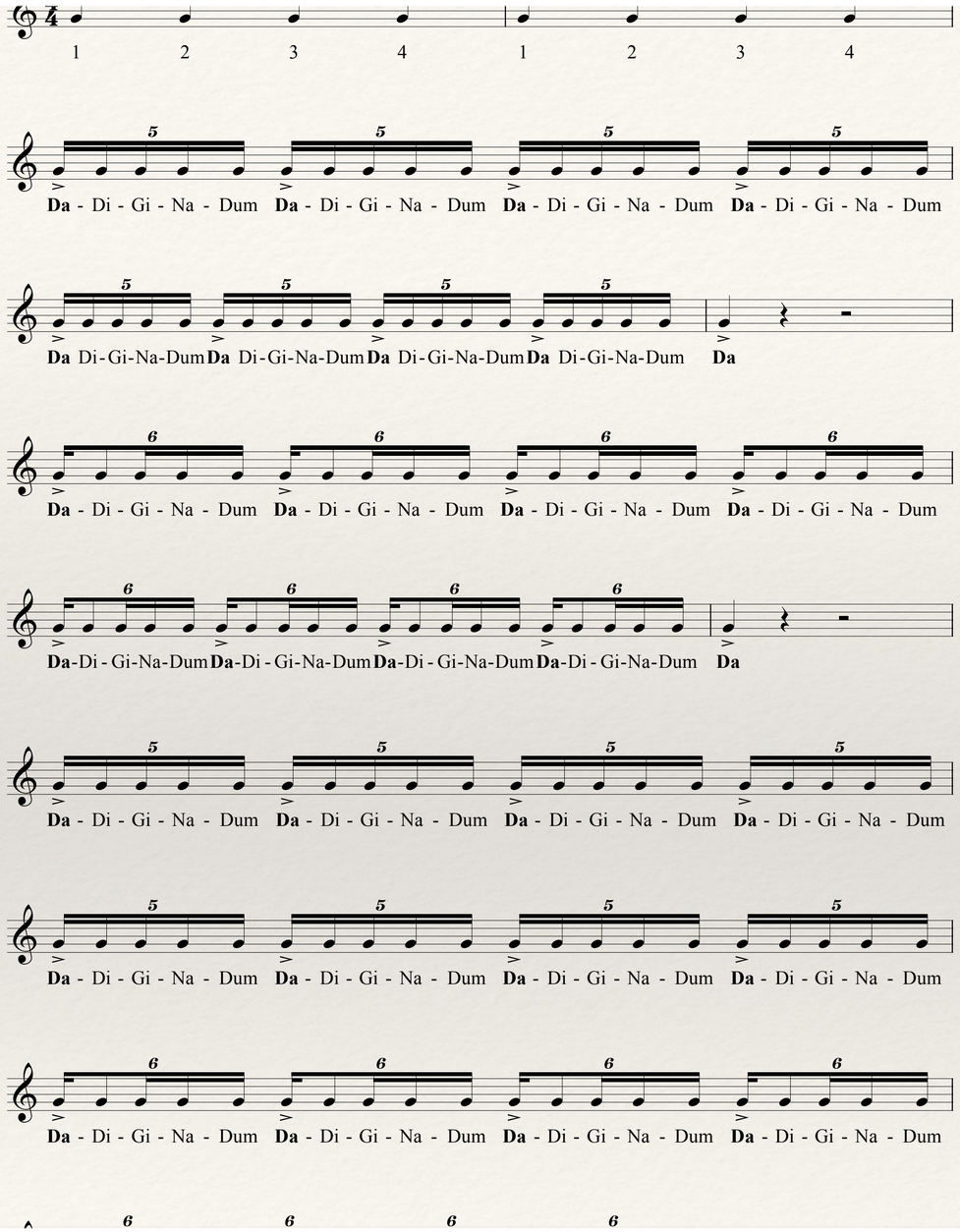
A new perspective of rhythm and mathematics

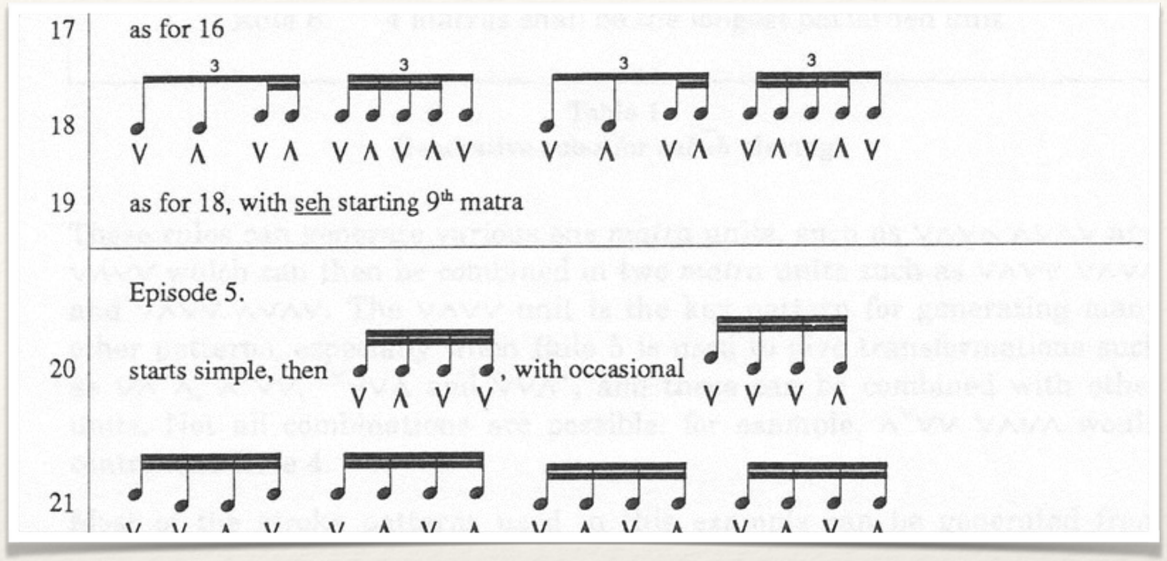
Strong sense of internal rhythm

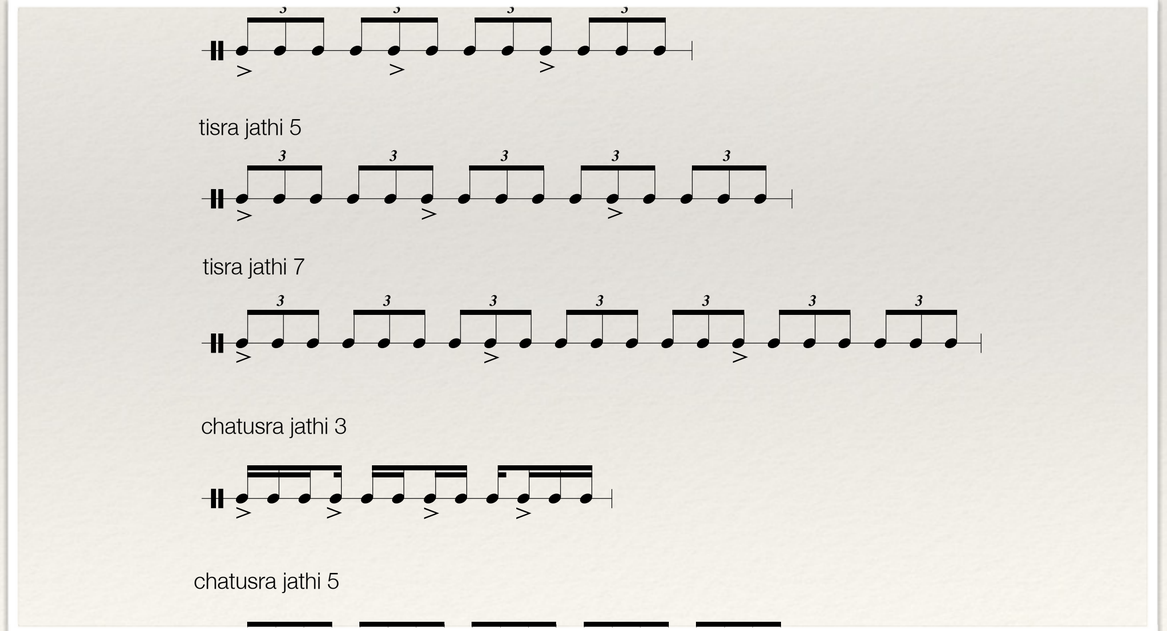
Compositional inspiration

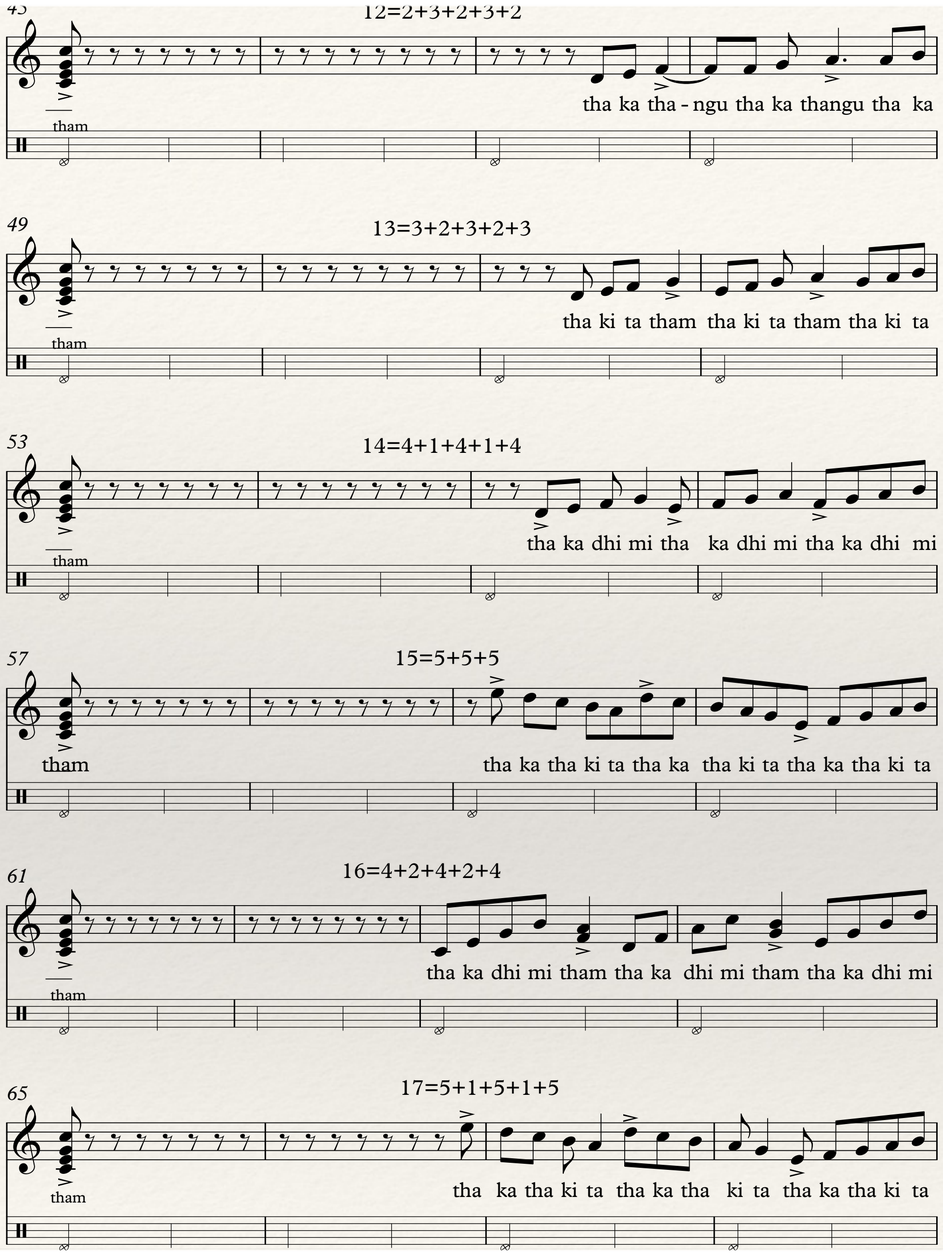
Improvization ideas

Accompaniment ideas


1 2 3 4 1 2 3 4
Da - Di - Gi - Na - Dum Da - Di - Gi - Na - Dum Da - Di - Gi - Na - Dum Da - Di - Gi - Na - Dum
Da Di-Gi-Na-Dum Da Di-Gi-Na-Dum Da Di-Gi-Na-Dum Da Di-Gi-Na-Dum Da
Da - Di - Gi - Na - Dum Da - Di - Gi - Na - Dum Da - Di - Gi - Na - Dum Da - Di - Gi - Na - Dum
Da-Di-Gi-Na-Dum Da-Di-Gi-Na-Dum Da-Di-Gi-Na-Dum Da-Di-Gi-Na-Dum Da
Da - Di - Gi - Na - Dum Da - Di - Gi - Na - Dum Da - Di - Gi - Na - Dum Da - Di - Gi - Na - Dum
Da - Di - Gi - Na - Dum Da - Di - Gi - Na - Dum Da - Di - Gi - Na - Dum Da - Di - Gi - Na - Dum
Da - Di - Gi - Na - Dum Da - Di - Gi - Na - Dum Da - Di - Gi - Na - Dum Da - Di - Gi - Na - Dum


17 as for 16
18
19 as for 18, with seh starting 9th matra
Episode 5.
20 starts simple, then , with occasional
21

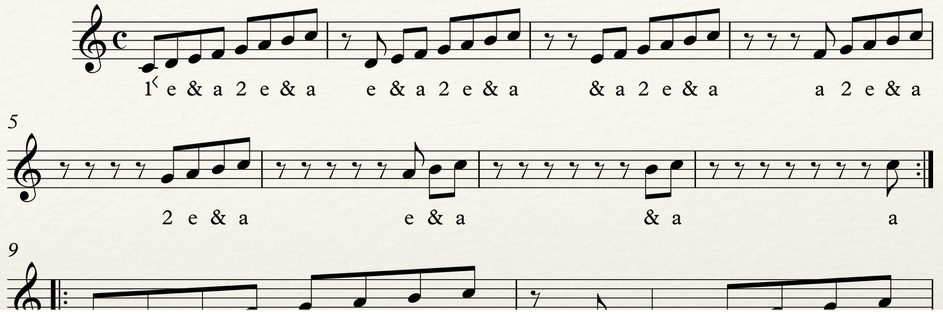

tisra jathi 5
tisra jathi 7
chatusra jathi 3
chatusra jathi 5



Indian rhythmic Excercises for Melody - Set 1

MT Aditya Srinivasan

Traditional Excercises



64=4+**1**+#1+8 #+**1**+*1*+#1+8 #+**1**+*2*+#1+8 #+**1**+*3*+#1+8 #+**1**+*4*+#1+8 #

Sample B - Expanding inner region - 10 = 4+6 ;

11=5+6;12=6+6;13=7+6;14=8+6
Further split - 4=1+3;5=2+3;6=3+3;7=4+3;8=5+3

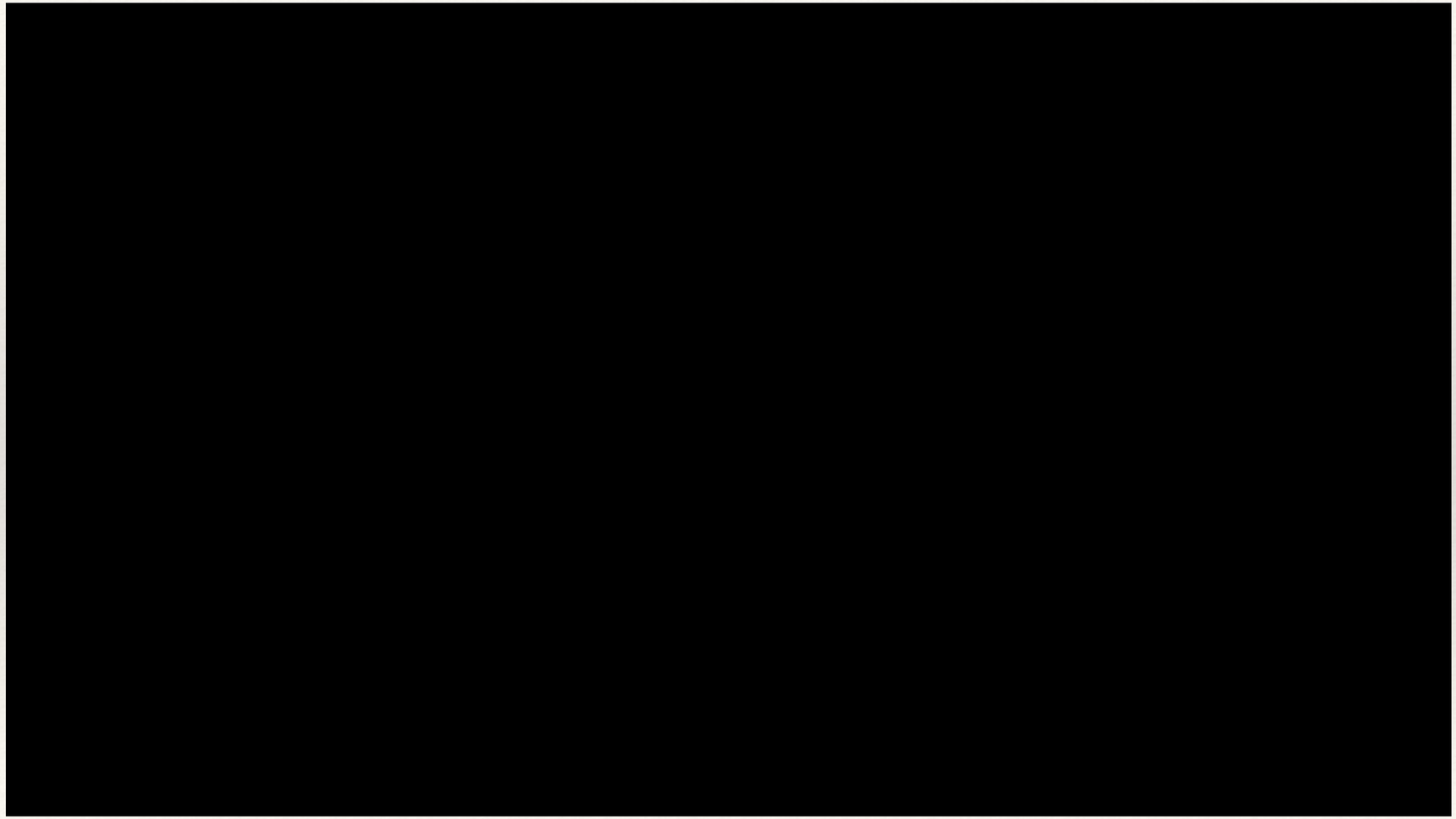
64 = 4+ (4+6) + (5+6) + (6+6) + (7+6) + (8+6)

64 = 4+ (1+3+6) + (2+3+6) + (3+3+6) + (4+3+6) + (5+3+6)

Working in silence would mean calling the first hit of every part.

Trial execution

Background track : Thillana in Lydian



Uniqueness of the project

- Brings together the work of many scholars and gives notational examples of not just the exercises but also the application of concepts
- Designed as a course work rather than book, with universities of music being specific targets
- Designed exclusively for Non Indian musicians
- It has been designed by one who was experienced the best of both worlds - great Indian masters as well as the best of contemporary music at Berklee
- It is not a study in Indian music, it is a study in the relevance of Indian rhythmic concepts to the world wide spectrum of music

The fellowship and future scope of the project

- As part of my fellowship I will concentrate on 2 different aspects of the course
- The 1st is the designing of the advance material for the next semester of coursework and the second is notating poetical aspects of Indian rhythm toward the development of a percussion ensemble
- This project is a calling card for me to conduct workshops and teach at music universities. I hope to teach this course as part of the fellowship at Berklee.
- Notation ! Notation ! Notation ! The application of this project in computation