ENGAGING HYBRIDITY: INDIAN HINDUSTANI AND CARNATIC PRACTICES IN THE WESTERN CLASSICAL SAXOPHONE TRADITION

by

HERBERT STANLEY FLANDERS II

(Under the Direction of Connie Frigo)

ABSTRACT

There has been limited discussion as to why and how saxophonists within the Western classical tradition can integrate and utilize Indian musical pedagogy. This paper will explore how the Western classical saxophonist can benefit from incorporating traditional Indian pedagogical practices, particularly through three case studies of hybridized compositions. These include *Raga Music for Solo Clarinet* (1958) by John Mayer, *Gavambodi 2* (1969) by Jacques Charpentier, and *Shruut* (2008) by Jorrit Dijkstra. Each chapter highlights a different aspect of India's vast soundscape focusing on either a Hindustani (North India), Carnatic (South India), or Bollywood (Indian film) approach to melodic construction (*rāga*) and rhythmic concepts (*tāla*). By assimilating Western classical saxophone performance practice standards with Indian stylistic elements, an interpretive approach beyond the periphery of notes and rhythms can hopefully disclose the untapped interpretive potential of three compositions for the saxophone.

The organizational format of this document is divided into six chapters: I. “Organizational Plan and Methodology;” II. “Transmission of the Saxophone in India;” III. “*Raga Music for Solo Clarinet*;” IV. “*Gavambodi 2*;” V. “*Shruut*;” VI. “Conclusion.”

INDEX WORDS: Saxophone; Hindustani; Carnatic; Raga Music for Solo Clarinet; John Mayer; Gavambodi 2; Jacques Charpentier; Shruut; Jorrit Dijkstra; Gamaka; Raga

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BM, Columbus State University, 2009

MM, University of Georgia, 2011

A Dissertation Submitted to the Graduate Faculty of The University of Georgia in Partial Fulfillment of the Requirements for the Degree

DOCTOR OF MUSICAL ARTS

ATHENS, GEORGIA

2016

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May 2016

ACKNOWLEDGEMENTS

I would like to thank Dr. Connie Frigo and Dr. Jean Kidula for the guidance and support they have given me throughout this degree and assistance in the creation of this document.

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LIST OF TERMS

- Alap (*Alapana*) – slow expositional material with no *tāla* or complex rhythm. Should provide a vivid portrayal of a *rāga* by maintaining a structural balance amidst the weaving of melodic patterns.
- Carnatic (Karnatic) – South Indian classical music.
- Deci-tāla – micro-rhythmic cells; influence most evident in the intermediate levels of musical structure: organization of phrases, lines, and stanzas.
- Drone – music is based on the establishment of relations between a permanent sound- fixed invariable. Key to all modal expression. Represents the cosmic sound Om. Drone instruments include: *shruti box, tambūra*.
- Dhrupad – classical Hindustani vocal genre.
- Gamaka – ornamentations through portamento and oscillation.
- Gat – formal section divided into two parts Vilambit (slow) and Drut (fast).
- Hindustani – North Indian classical music.
- Janya rāga - a scale derived from a *mēla rāga*. Can contain as little as five pitches and have an irregular ascent or descent.
- Jhālā – climax.
- Jor (*Tanam*) – similar to *alap* in that it has no *tāla*, however it does highlight rhythmic elements and maintains a certain pulse.
- Keertana - composition in Carnatic music similar to *kriti* in form but emphasizes textual *bhakti* (devotion). Text takes precedence over aesthetic value of music.
- Kriti – composition in Carnatic music divided into three sections: *pallavi*, *anupallavi*, and *charana*. Stresses aesthetic value of music rather than text, which usually has a devotional theme.
- Mātrā – beat or the duration between two beats
- Mēlakartha rāga - a seven note scale that has the same regular sequence in both ascent and descent.
- Rāga – are scales, each possessing salient features evoking certain emotion or mood. Each *rāga* serves as a melodic template characterized by four facets: prominence of fixed notes, sequence of a particular note, prominence of one note, and definite combination of *svaras*.
- Ragamala - paintings associated with specific *rāgas* are included as imagery necessary to evoke the proper *rasa*.
- Rasa – denotes an essential mental state and is the dominant emotional theme of an artistic manifestation. Color, flavor, mood.
- Samvadi - The consonant note of a *rāga* with a perfect fourth or fifth relationship to the *vadi*.

- Shruti (*śruti*) – microtones, conceptual-perceptual structure of the entire dimension of pitch, dividing the octave into twenty-two unspecified micro-units.
- Svara – scale degree manifested by *śruti*.
- Thāt – ten scales used as the basis for *rāga* classification
- Tāla – ordered metrical cycles developed through hierarchical relationships. Marked both by fixed cycles of drum strokes and by fixed cycles of hand claps and handwaves that mark metrical progression.
- Tanam (*Joṛ*) – similar to *alap* in that it has no *tāla*, however it does highlight rhythmic cycles to come.
- Vadi - the sonant or principle note of a *rāga*.

CHAPTER 1

Organizational Plan and Methodology

Introduction

“The Orient, and in particular the Near Orient, became known in the West as its great complementary opposite since antiquity.”[1] The West’s contemplation of Indian music was originally used as a means to evoke *exotic* imagery in the late 19th century with ‘novelty’ facilitating early successes. [2] As understandings have evolved, these two distinctly different cultures with diverse musical heritages have formed a unique parentage to a new era of universal music.[3] What Indian musicians have known for centuries has been slowly discovered in the West: the spirituality inherent in performing within a collective consciousness – where art is transformed from notes on a manuscript to communication with the deepest parts of our selves and the Divine.

> “The Orient is an idea that has a history and a tradition of thought, imagery, and vocabulary that have given it reality and presence in and for the West. The two geographical entities thus support and to an extent reflect each other.”[4]

The saxophone represents an ideal crossover between Western and Indian musics because of its inherent vocal quality and tonal flexibility, coupled with its highly improvisational character.[5] This paper will explore how the Western classical saxophonist can tap into traditional Indian pedagogical practices using three case studies: *Raga Music for Solo Clarinet* (1958) by John Mayer (1930-2004), *Gavambodi 2* (1969) by Jacques Charpentier (b.1933), and *Shruut* (2008) by Jorrit Dijkstra (b.1966). Each chapter highlights a different aspect of India's vast soundscape focusing on either a Hindustani (North India), Carnatic (South India), or Bollywood (Indian film) approach to melodic construction (*rāga*) and rhythmic concepts (*tāla*).

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[1] Edward W. Said, *Orientalism* (New York: Vintage Books, 1979), 58.

[2] Distinction of West and East in this paper is based on Edward Said’s groundbreaking treatise *Orientalism*. According to Said, Orientalism dates from the period of European Enlightenment and colonization of the Arab World. Orientalism provided a rationalization for European colonialism where the “West” constructed the “East” as extremely different and inferior, and therefore in need of Imperialistic salvation.

[3] Every culture has its own methodology to which they adhere to regarding musical conception. “Universal” is not suggesting all cultures hybridize various idioms but refers to music’s ubiquity. In this case, how the saxophone’s future is curtailed without embracing universality.

[4] Edward W. Said, *Orientalism* (New York: Vintage Books, 1979), 5.

Amalgamation of styles is intrinsic to the progression of Western music. Since the late 1950s composers, jazz artists, and rock stars seeking musical and spiritual refuge have made pilgrimages to India.[6] Classical saxophonists have just as much to gain from engaging beyond the boundary of standard pedagogy. Integrating new practices in our approach to Indian-inspired compositions broadens interpretive potential in the Western classical spectrum.

Purpose

This paper is designed to provide Western classical saxophonists insight on Indian-influenced classical compositions through hybridity of Western and Hindustani/Carnatic styles. Each chapter will focus on an aspect that shapes the Indian soundscape. By assimilating Western classical saxophone performance practice standards with Indian stylistic elements, an interpretive approach beyond the periphery of notes and rhythms can hopefully disclose the untapped interpretive potential of three compositions on the saxophone.

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[5] Throughout the saxophones development it has been employed in genre's that require some capacity for improvisation. Improvisation has become synonymous with the saxophones identity.

[6] Several pivotal figures from the Indian classical tradition, primarily Hindustani, would serve as translators of this new language to the West from the 1950s through the 60s. The central figures were: Pandit Ravi Shankar (*sitar*), Ustad Alla Rakha Khan and his son Zakir Hussain (*tabla*), Chatur Lal (*tabla*), Ali Akbar Khan (*sarod*), Ustad Bismillah Khan (*shehnai*), and L. Shankar (Karnatic Violin).

Need for this Study

The music of India has been researched from multiple vantage points. Technology has taken it a step further enabling us to relocate the field into our homes, providing musicians with authentic approaches to Hindustani/Carnatic performance practices. However there has been limited discussion as to how Western classical saxophonists can incorporate and utilize Indian pedagogy.

The current move towards globalization heralds a new age in music where artists can access worlds of melodic and rhythmic possibilities that transcend the act of performance. Through globalization, today's music has layers of hybridity often to the point one cannot firmly establish its origins. Delving deeper into these 'origins' can provide musicians a new template for artistic creation or become a means of modifying Western classical compositions inspired by "Eastern" melodies, rhythms, and timbres.

> "Musical style embeds every piece of music in a dense web of historical forces and individual compositional choices. Performance practice adds another layer of choice. Therefore, awareness of stylistic and other historical influences is often required in order to be aware of valuable features of the human designs that we perceive."[7]

Western classical saxophonists have much to gain from engaging hybridity. The saxophone has always defied its "purpose." Initially constructed as new means of color within the orchestra, the saxophone and its performers have expanded its reach to encompass a plethora of styles (i.e military band, jazz, rock). Our instrument has been accepted and utilized as a new tool of expression across a network of cultures, but saxophonists have yet to examine the new voice it ascertains through indigenous perspectives. Exploring compositions influenced by the melodic and rhythmic language of India delineates one of many gaps in the universal contemplation of saxophone.

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[7] Theodorem Gracyk, *On Music: Thinking in Action* (New York: Routledge, 2013), 37.

Delimitations

This study will focus on three specific Indian-influenced compositions: *Raga Music for Solo Clarinet* (1958) by John Mayer (1930-2004), *Gavambodi 2* (1969) for alto saxophone and piano by Jacques Charpentier (b.1933), and *Shruut* (2008) for saxophone quartet and electronic shruti box by Jorrit Dijkstra (b.1966). Discussion of indigenous melodic and rhythmic language will be relegated to what composers incorporated in each work with a brief overview of the tradition (Hindustani/Carnatic) from which they drew inspiration.

Methodology

The hybridized performance practices discussed in the following chapters are derived from an array of influences including recordings, transcriptions, one-on-one instruction, and literature on the subject matter. Early scholarly writing involving the music of India was delimited by Western bias due to lack of understanding either through arm chair research, Imperialistic perspectives or over-analyzation. Even contemporary conjecture falls into the trap of relegating precise *shruti* placement in graphs and denoting *rāgas* as one specific construction not taking into account regional practices and current performance trends. The alternations I suggest are based on an amalgamation of sources that can be divided into three categories: Melodic Theory, Rhythmic Theory, and History.

Melodic Theory (*Rāga*)

The concept of *rāga* has inspired and perplexed Western theorists, musicologists, and musicians since our early interaction with India. *Rāgas* on the surface are understood as scales with an Indian solfège system **sa**, **re**, **ga**, **ma**, **pa**, **dha**, **ni** that corresponds with our own **do**, **re**, **mi**, **fa**, **sol**, **la**, **ti**. Since post-Apartheid in 1947, resources regarding the music of India have readily become available to the West. Many contain a simple outline of a scale and lack contextualization of the multivalent parameters a *rāga* performance entails.

Alain Daniélou's book *The Rāgas of Northern Indian Music* attempts to fill in the gray areas in the West's understanding of Hindustani *rāgas*. Early chapters discuss history, melodic and rhythmic organization, *shruti* (microtone) placement within the well-tempered system, and ornamentation (*gamakas*). However, its primary significance is the organization of *rāgas* by time of day or season accompanied by two brief examples in Western notation. Daniélou dissects each *rāga* by briefly explaining its emotional aesthetics (*rasa*), common *gamakas* (ornaments), droning notes (*vadi*[8]/*samvadi*[9]), and quarter-tone theory via shaped notes. Parallel to Western music's continuing evolution, some *rāgas* discussed have evolved to have different spellings and aesthetics. Notations are delimited to the Benares Musical Tradition[10], and differ slightly from other modern compilers.

Carnatic music resources do not go into the same detail regarding *rasa* and *shruti* placement. Despite operating on principles similar to the *rāgas* of North India, specifics of performance and classification are different. Most theory regarding performance practices of South Indian *rāgas* is derived from devotional songs or *kriti*[11]. *Gamaka* and

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[8] The sonant or principle note of a *rāga*.

[9] The consonant note of a *rāga* with a perfect fourth or fifth relationship to the *vadi*.

[10] City located in North India south of Lucknow along the Ganges River.

[11] Composition in Carnatic music divided into three sections: *pallavi*, *anupallavi*, and *charana*. Stresses aesthetic value of music rather than text, which usually has a devotional theme.

shruti practices are embedded within the text of *keertana*[12] and *kriti* compositions from historically significant composers[13] passed down through the *gharānā*[14] system.

Walter Kaufmann discusses the systematic construction of Carnatic music in *The Ragas of South India: A Catalogue of Scalar Material*. While it does not go into great depth on *rasas* or *gamakas*, it does provide scalar theory of *mēla rāgas*[15] and the subsequent *janya rāgas*[16] derived from them. Each *mēla rāga* is accompanied by a brief example in Western notation attributed to a member of the Trinity of Carnatic music. Melodic shape takes the forefront in analysis with limited *gamaka* and *shruti* discussion. Regional *rāga* identification is also taken into account, incorporating alternate names for *mēlas* given the tradition (ex. *Gavāmbodhi = Gīrvāna = Gīrvāni*).

Rasa theory and *shruti* practices are idiosyncratic and therefore hard to quantify in the West. N.A. Jairazbhoy is one of many scholars who has attempted to elucidate discrepancies through visualization and discussion. In *The Rāgs of North Indian Music*, Jairazbhoy goes into great detail on the effect of drones on our aural perspective of consonance versus dissonance. These aural inconsistencies are subject to unconscious variations in intonation either through melodic contour or a performer's aesthetic. Transcriptions of *rāgas* in later chapters further encapsulate the context of a performance and its nuances without the complexity of *tāla* (rhythmic cycle).

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[12] Composition in Carnatic music similar to *kriti* in form but emphasizes textual *bhakti* (devotion). Text takes precedence over aesthetic value of music.

[13] Sri Tyagaraja (1767-1847), Muthuswamy Dikshitar (1776-1835), and Syama Sastri (1762-1827) are known as the Trinity of Carnatic composers. All three were well versed in the *Vedas* (scriptures) and *sastras* (sciences) with devotional compositions primarily in Sanskrit and Telugu.

[14] Collective musical family and teaching lineage of a particular teacher.

[15] A seven note scale that has the same regular sequence in both ascent and descent.

[16] A scale derived from a *mēla rāga*. Can contain as little as five pitches and have an irregular ascent or descent.

Dr. S. Bhagyalekshmy expands upon the Carnatic perspective of the *shruti* system with graphs on "proper" microtone placement in *Ragas in Carnatic Music*. Despite placement being subject to a performer's tradition, Bhagyaleshmy provides a standard in which microtones have a rough estimate of placement.[17] Each *rāga* example is constructed through the Indian solfège system accompanied with a list of compositions utilizing the *mēla rāga*.[18]

Technological developments have enabled one to further discuss *rāga* practices through transcription with the accompaniment of an aural stimulant. *The Raga Guide: A Survey of 74 Hindustani Ragas* by Joep Bor provides a brief intro to *rāga* classification and common *tālas* used in performance. Each example has a brief history, time of performance, different variations of scalar ascent and descent, and a melodic outline. *Rāga* transcriptions are accompanied with either an instrumental or vocal recording. This not only provides insight on performance practices but also the timbral variables associated with the Hindustani soundscape. *Ragamala* paintings associated with specific *rāgas* are included as imagery necessary to evoke the proper *rasa*.

Though there are countless sources on theoretical principles of Indian classical music, pedagogically we are limited. What are practice aesthetics? *Classical Music of South India: Karnatic Tradition in Western Notation* by Kanthimathi Kumar and Jean Stackhouse is a Carnatic pedagogical reference in which chapters are presented as lessons. The opening provides historical and theoretical material to give the performer some background to Carnatic music. *Sarali*[19], *jantai*[20], and *alankara*[21] exercises give an idea of the proper positions of various tones within *tāla* structures. This material is followed by *gitas*[22] in Western notation to be sung initially, providing a rudimentary approach to the rendition of a *rāga*. *Gamakas* are not addressed until later in the book, and while they shed some light to performance practice placement, it is difficult to put precise continuity and oscillation in Western notation.

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[17] The concept of *murchanakaraka* in which a *mēla* or *janya rāga* gives rise to a new one through modal shift of the tonic is also charted and discussed. Modal shift is similar to our Western modal system in that a new scale arises from the shift of the root within the context of the scale. However, in Indian classical music this instance does not occur on all scale degrees of a *rāga* often having two or three shifts as opposed to all intervallic shifts generating a new mode. Charpentier's modal shift discussed in Chapter Four does not follow this rule.

[18] Compositions are often works by the Trinity of Carnatic performers.

The most relevant resources rest in the minds of current and former masters of Indian music. Towards the latter half of the 20th century different masters of the Indian classical traditions (Hindustani/Carnatic) have attempted to provide the uninitiated Western musician first-hand pedagogical insight to different practices. The Carnatic saxophonist Kadri Gopalnath[23] and Hindustani *sarodist* Ali Akbar Khan[24] are two traditional musicians who have broadened the global scope of pedagogy.

Candida Connolly and Kadri Gopalnath's *Indian Melodies for Alto Saxophone* builds upon Carnatic pedagogical practices through a saxophone perspective. This book offers introductory exercises, first songs, *svarajatis*[25], *varnams*[26], and *kriti* with a recording of Kadri Gopalnath's renditions of the material. Each example is preceded by a

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[19] The first set of preliminary exercises of Carnatic music, initially scales at varying speeds that eventually focus on melodic patterns.

[20] Carnatic music preliminary exercise which emphasizes repeated notes.

[21] Carnatic music preliminary exercise that focuses on different scalar patterns. Emphasizes zigzag melodic movement.

[22] Simple composition meant for a beginner that presents a raga in a simple form.

[23] Discussed in Chapter Two.

[24] Ali Akbar Khan (1922-2009) was a Hindustani classical musician known for his virtuosity on the *sarod*. He played a prominent role in the popularization of Indian classical music in the West as a teacher and performer.

[25] Carnatic composition with text having three customary sections: *pallavi*, *anupallavi*, and *charana*.

[26] Carnatic composition that enhances technical facility through melodic patterns within a *tāla* (rhythmic cycle). Often performed in three sections similar to *kriti*.

rāga with concert B^{b} in the staff as fixed sa (do). Familiarity with rudimentary Carnatic models is necessary before engaging this unprecedented saxophone source.

The Classical Music of North India by George Ruckert and edited by Ali Akbar Khan is an encompassing contemporary source that discusses Hindustani melodic and rhythmic theory, history, form and style. This source is unique in that it disassociates itself from Western notation. Each of the ten *rāgas* covered are composed in Indian solfège within the setting of a rhythmic cycle. Multiple musical forms are dissected and expounded upon including *dhrupad*[27], *khyal*[28], light classical and instrumental music.

The main obstacle that many Western musicians face when approaching Indian pedagogy is combining it with a *tāla* (rhythmic cycle). Before attempting to combine *rāga* and *tāla* it is beneficial to set each practice apart to develop a comfortable foundation.

Rhythmic Theory (*Tāla*)

Tāla theory has intrigued Western composers and musicians throughout the 20th century due to its complex system of rhythmic variables within the scope of a simple to complex cycle. Some of the West's early attempts of incorporating this material arose from ancient treatises translated without expressing underlying meaning.

The ornithologist and rhythmician, Olivier Messiaen, would prove to be one of the most pivotal figures of the 20th century to stress rhythm as an integral foundation of composition, searching for means beyond the constrictions of Western music.[29] Specifically he used *deçi-tâlas* compiled by 13th-century Indian theorist Śârngadeva[30], which he first discovered in Albert Lavignac's *Encyclopedia de la Musique*.[31] Messiaen describes and includes examples of his use of Hindustani and Carnatic rhythms in the first volume of his *Traite de Rythme, de Couleur, et D'Ornithologie*. Contrary to standard classical Indian performance practices he would use multiple cycles in a single composition not necessarily in their authentic form, often subject to layering, augmentation and diminution.[32]

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[27] Oldest currently-practiced classical vocal style in Hindustani music. Devotion takes precedence in the rendition of a *rāga*. Employs both metrically free and metered sections.

[28] Hindustani classical vocal style later adopted by instrumentalist. Its prominent feature is the way it combines melodic freedom within the structure of a rhythmic cycle. Performed in two parts: slow (*vilambit*) and medium-fast (*drut*).

In the latter part of the 20th century theorists and musicologists have been more adept in attempting to quantify and qualify *tāla* theory. *Time in Indian Music: Rhythm, Metre, and Form in North Indian Rāg Performance* by Martin Clayton provides an in-depth analysis of *tāla* not limited to rhythmic cycles alone. Formal concepts of rhythm (*alap*, *joṛ*, *gat*, *jhālā*) and its relation to melody are graphed and incorporate generalized contemporary performance practice shifts. Some basic assumptions about tempo variation only being surface level are dismissed, granting the prospect of rhythmic fluctuation. Musical notations of *mātrā* "beat" combinations provide a clear insight to the uninitiated Westerner.

Analogous with technology further encapsulating melodic developmental practices, many contemporary sources discussing *tāla* provide both visual and aural aids.

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[29] Jean Boivin, "Musical analysis according to Messiaen: a critical view of a most original approach," *Olivier Messiaen: Music, Art and Literature*, ed. Christopher Dingle and Nigel Simeone (Burlington, VT: Ashgate 2007), 148.

[30] 13th-century Indian musicologist and author of the *Sangita Ratnakara*, regarded as one of the most important musicological text in both Hindustani and Carnatic music.

[31] Ibid, 149.

[32] His student Jacques Charpentier was influenced by both India and Messiaen's compositional style. Discussed in Chapter Four.

Solkattu Manual: An Introduction to the Rhythmic Language of South Indian Music by David P. Nelson provides insight to the syllabic rhythmic system accompanied by hand gestures. *Solkaṭṭu* is comprised of spoken phrases within a *tāla*, and does not require an instrument to practice. Accompanied with a DVD, this pedagogical source consist of a series of lessons that delve into rhythmic cycles, variations, and syllabic/timbral language. As opposed to Carnatic sources, there are far more available discussing Hindutani *tāla*. This is due to the West's infatuation with the *tabla* after its universal presence post-1960. *Learning the Tabla* by David Courtney is a visual and aural aid for the uninitiated *tablist*. Courtney discusses a large number of strokes, and patterns with recorded examples to check if sound is correct.[33]

History

History of India's vast musical legacy has been discussed through multiple perspectives. Bonnie C. Wade has made several contributions to Indian ethnomusicological scholarship through an array of case studies. *Imaging Sound. An Ethnomusicological Study of Music, Art, and Culture in Mughal India* is an interdisciplinary study of cultural life on the Indian subcontinent. Wade presents and discusses illustrated manuscripts and miniature paintings commissioned by the rulers of the Mughal Empire from the 16th through the mid-19th centuries. Images of musical instruments, portraits of musicians and ensemble arrangements form the basis of this study on how musicians of Hindustan encountered and Indianized music from the Persian cultural sphere.

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[33] Timbres discussed in Chapter Five are affiliated with different *bol* stroke timbres from this source.

Lewis Rowell provides insight on continuities in Indian thought regarding music and the arts in *Musical Thought in Early India*. Systematic and symbolic thinking are fused as one identity in Indian music. Therefore, the conception of sound is a lexicon with numerous depths of meaning. Rowell compares and contrasts this with other ancient concepts of sound that have similar strategies of explanation but with profoundly different results.

Gregory D. Booth has contributed a large sum of information regarding popular trends and Western instrumental assimilation in India. In his *Socio-Musical Mobility among South Asian Clarinet Players*, Booth provides historical insight on the development and inclusion of clarinet in India. He not only discusses early genres but also prominent Carnatic and Hindustani clarinetists from the early to mid-20th century. *The Madras Corporation Band: A Story of Social Change and Indigenization* by Booth charts the development of early British wind bands in India and how they eventually molded the Western genre to fit their musical confluences. The Madras Corporation Band represents a pivotal point in which the soundscapes of Western wind instruments evolved through Indian performers of traditional styles.

More than Bollywood: Studies in Indian Popular Music edited by Gregory D. Booth and Bradley Shope discusses how a semiotic cultural transition occurred through colonialism with India. Film song, Bollywood, is a result of this hybridized relation. Each chapter contains an article from a different author discussing India’s incorporation of Western musical styles such as jazz, rock, and DJ-ing and how the recording/film industry led to early transmission of indigenous music.

There is limited documentation of the saxophone's assimilation into traditional Hindustani/Carnatic practices by Indian musicians. It would not be until the mid-20th century before a prominent saxophone performer would arise in India. Chapter Two will discuss and trace the saxophone's eventual inclusion through the adoption of clarinet by Indian wind performers. Chapter Three explores the unaccompanied Hindustani-influenced work, *Raga Music for Solo Clarinet*, by the Anglo-Indian composer John Mayer. Chapter Four dissects the Carnatic practices implemented by the French composer Jacques Charpentier in *Gavambodi 2*. Chapter Five ruminates on Bollywood music and hybrid compositional practices in *Shruut*, by Dutch composer Jorrit Dijkstra. Chapter Six summarizes and discusses the potential of a musio-cultural approach. These chapters function together to highlight the three dominant traditions in the Indian soundscape.

Chapter Outline

I. Organization plan and Methodology
   A. Introduction
   B. Purpose
   C. Need for this Study
   D. Delimitations
   E. Methodology
      1. Melodic Theory (*Rāga*)
      2. Rhythmic Theory (*Tāla*)
      3. History

II. Transmission of Saxophone in India

III. Raga Music for Solo Clarinet
   A. Hindustani Music
   B. Hybridized Approach

IV. Gavambodi 2
   A. Jacques Charpentier's Compositional Influences
   B. Carnatic Music
   C. Mēla Gavambodi
   D. "Gavambodi" from *72 Études Karnatiques*
   E. *Gavambodi 2*
   F. Hybridization of Traditional Carnatic Practices

V. Shruut
   A. Satyajit Ray
   B. Drone, *Gamakas* and Form
   C. Rhythm and the Superimposition of Teental
   D. *Charulata* Motive and Film/*Rāga* Implications

VI. Conclusion

CHAPTER 2

Transmission of Saxophone in India

Integrating new voices opens the door to the saxophone's future. Through their interaction, India and the West have developed an intercultural hybridity from compositional and instrumental exchange. Understanding the early diffusion of clarinet in India and the different timbral aesthetics performers incorporated provides insight on the saxophone's later acceptance into a new culture and pedagogy.

Multicultural transmission through political and social means has played an important role in India's tumultuous history. The cultural synthesis of Turkish, Persian, Mughal, and British (Western) musical practices has redefined India's soundscape. These external influences have led to the repeated reconstruction of India's identity where the people of post-sovereign India have refashioned sociological and political ideologies to fit their own designs of social organization and suit their cultural needs.[34]

North and coastal India functioned as a gateway of intercultural dissemination with its primary centers being Calcutta and Mumbai (formerly Bombay). In the 1780s Europe became fascinated with exoticism through trends of the picturesque movement.[35] Collections of drawings and paintings depicting a Eurocentric view of Indian life along with garments became a fad in Europe. The music of India was viewed as inferior and amateurish due to a superiority complex into which Western equal-temperament delimited indigenous musics. Oral transmission of Indian music aesthetics, prominently microtonal language, was hard for the West to grasp without any form of textual construction. However, interest in transcribing a European model of indigenous material existed with the creation of ‘Hindostannie airs.’[36] These compositions are derived from Indian ‘originals’ but arranged in a European idiom. Several factors affected the recreation of an authentic Indian soundscape, prominently equal temperament and harmony. Nevertheless, these represent conscious compositional attempts to recreate the drone with the repetition of a single note or intervals, and melodic outlines that hearken to modal (*rāga*) conception.

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[34] Gregory D. Booth, "The Madras Corporation Band: A Story of Social Change and Indigenization," *Asian Music* 28, no.1 (Fall/Winter 1996/97): 61.

[35] Ian Woodfield, *Music of the Raj: A Social and Economic History of Music in the Late Eighteenth Century Anglo-Indian Society* (Oxford: Oxford University Press, 2000), 151.

Through its long-term military presence, the British gained an encompassing command by the early 19th century. The British military bands that accompanied regiments were responsible for the early dissemination of Western musical aesthetics and instrumentation throughout the empire.[37] Their function was not only to entertain through performing at civil, concert, and military functions but also display authoritative, political and cultural superiority. As Britain became more involved, India became a popular destination for European travelers. Open air concerts, specifically in Calcutta, provided much of the entertainment for visitors.[38]

Indian royalty began imitating the British band model at the turn of the 19th century. Maharaja Ranjit Singh (1780-1839) formed one of the earliest British style bands. Indian musicians in early ensembles were trained by British bandmasters, and performed exclusively British music while dressed in military garb. South India would be at the forefront of acclimatization towards Western instruments. Sarabhoj-ji II (1798-1832) would be one of the first to assimilate traditions, forming the earliest known non-military European style ensemble in India. He encouraged the performance of Indian music on Western instruments, and occasionally alongside traditional instruments, even using a clarinet in place of a double reed to accompany dance performances.[39] Sarabhojji's successor, Shivaji II (1832-1855) continued this new adopted tradition performing mostly Indian music with the formation of the Royal Tanjore Band.

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[36] Ian Woodfield, *Music of the Raj: A Social and Economic History of Music in Late Eighteenth-Century Anglo-Indian Society* (New York: Oxford University Press, 2000), 149.

[37] 6-12 performers with instrumentation; trumpets, clarinets, fifes and flutes, horns, bassoons, serpents, and trombones.

[38] Popularity of these performances led to demand for instrument manufacturers.

Royal court bands were formed by the elite as a symbol of wealth and prestige. With the dismantling of the Maharaja System and establishment of the British Raj in 1858, royal musicians were dispersed throughout India.[40] Ex-royal and military musicians were the earliest teachers through the perspective of Western pedagogy. Though the British military band model would serve as a standard of practice, fusion of Western instruments into Indian traditions was a gradual process tarnished by affiliations with Imperialism and the lower caste.

Out of financial necessity, many musicians often ascribed to a low caste would incorporate a Western instrument into their practice as a means to be more marketable. By the 1860s wind players often doubled, performing on traditional reed instruments such as the *shehnai*[41] and *nadaswaram*[42] and Western instruments, specifically E^b or B^b

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[39] Gregory D. Booth, "The Madras Corporation Band," *Asian Music* 28, no.1 (Autumn/Winter 1996/97): 63.

[40] Gregory D. Booth, *Brass Baja: Stories from the World of Indian Wedding Bands* (New York: Oxford University Press, 2005), 18.

[41] The *shehnai* is a Hindustani aerophone similar to the oboe. Its construction consist of a quadruple reed (two per side), a conical bore wooden body with six to nine open tone holes, and a flared wooden or brass bell. Ustad Bismillah Khan made many contributions to its popularity as a performer.

clarinets, in order to take advantage of the stable employment wind bands offered.[43] With them, these musicians brought customary repertoire and stylistic aesthetics associated with their traditional instruments. The *nadaswaram* and *shehnai* share similar social roles in performance, often used to accompany wedding processionals, and religious ceremonies. Repertoire included wedding songs, folk melodies, light classical *rāga*-based compositions, and occasionally dance and theatre music.

The clarinet has complemented and replaced *shehnai* in processional ensembles for longer than oral history can record and consequently has greater prestige than other European wind instruments.[44] In the latter half of the 19th century the clarinet began to take on new roles beyond military band. Clarinet served a dual purpose; it was not only used in Indian wind bands, but also featured in the traditional folk repertoire of *shehnai* parties. Through Indian wind bands many clarinet performers came from hereditary double-reed families, often being the only musicians with connection to either Hindustani or Carnatic classical music in the ensemble.

By the early 20th century Indian wind band tradition was well-established in Hindustan and the Punjab region. Instrumental training was at its peak with musicians studying Western practices textually, or more often orally from band leaders and classical musicians of previous generations. Hindustani classical music was experiencing a resurgence in court centers with a well-patronized tradition predominantly occupied by Muslim musicians. Indian wind band repertoire became more diverse to reflect this

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[42] The *nadaswaram* is a Karnatic aerophone similar to the *shehnai* but much longer. Its construction consists of a double reed, a conical bore wooden body with seven open tone holes with five additional tone holes that can be modified with wax stops. Sheik Chinna Moulana made many contributions to its popularity as a performer.

[43] Gregory D. Booth, “Socio-Musical Mobility among South Asian Clarinet Players,” *Ethnomusicology* 41, no.3 (Autumn 1997): 491.

[44] Gregory D. Booth, *Brass Baja*, (New York: Oxford University Press, 2005), 175.

resurgence along with incorporation of contemporary popular music trends. Groups continued to perform orally transmitted "English music" (waltzes and marches) and wedding songs for *barat*[45] ceremonies, but also included popular tunes from music dramas reminiscent of Western vaudeville. Soloists, often a clarinetist, performed in an improvisatory fashion indicative of traditional classical music but much shorter in length. Musicians developed their own instrumental technique on Western instruments through instruction from either a vocalist or wind player. Clarinetists began performing the solo instrumental *kẖyāl*-style[46] and *gat-tōṛa*[47] repertoire where *rāga*-based improvisation took priority.[48]

Indian clarinetists' timbral inception and adaptation of traditional forms in the late 19th and early 20th centuries facilitated its later progression into customary practices. Acclimatization of saxophone to traditional Indian classical music was slow after its introduction in the mid to late 19th Century through touring British Brass bands brought to entertain the European elite.[49] Despite its Western connotations of being a novelty, the saxophone was adopted by Mysore palace bands around the period of 1865-1880.[50] These ensembles of South India were symbols of wealth and prestige initially imitating their

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[45] Wedding procession in North India and Pakistan in which the groom travels from his home to the wedding venue (often the bride's house).

[46] Derived from the Persian word meaning "fantasy" or "idea." Its prominent feature is the combination of melodic improvisation within the metrical structure of *tāla*. Usually performed in two parts with an opening slow (*vilambit*) section followed by medium-fast (*drut*) section.

[47] A fixed composition subject to variations within the parameters of a rhythmic cycle (*tāla*).

[48] Gregory D. Booth, "The Socio-Musical Mobility among South Asian Clarinet Players," *Ethnomusicology* 41, no.3 (Autumn, 1997): 492.

[49] One noted saxophonist who is accredited for performing as a soloist in India is Charles-Jean-Baptiste Soualle. Originally a clarinetist, Ali-Ben-Sou-Alle was an intermittent traveler who took a major role in the global diffusion of the saxophone. He performed in oriental garb as Ali-Ben-Sou-Alle, on the 'corno musa,' (Turkophone) a slightly altered saxophone with one octave mechanism, what we are accustomed to seeing today.

[50] It is difficult to narrow down the exact date saxophone was adopted in India. My assessment is based on a combination of sources regarding promenade concert and military band tours in India along with the Mysore palace bands history.

British counterparts in orchestration, garb, and repertoire. Similar to the clarinets history in India, South Indian musicians were more disposed to integrate Western instruments into their customs.

By the 1920s it was common for ensembles to perform Carnatic music, often with a featured clarinetist performing *rāga*-like solos with ensemble accompaniment. The saxophone procured a new timbral interpretation during this period through the growing importance of wind bands in India with Hindustani and Carnatic musicians indoctrinating it to their traditional systems of performance. By the mid-20th century the Madras Corporation Band would become one of the first state-sponsored, non-military wind bands in independent India; performing more traditional repertoire (*kritis*, *thevarams*, *kirtans*, etc.) as opposed to the march-oriented style of an Indian Army ensemble.[51]

British style marching ensembles were one of two European colonial influences in which the saxophone extended its visibility throughout the Indian subcontinent. Jazz first arrived to India in the 1920s. During the big-band era numerous European, Canadian, and American ensembles toured on the dance-band circuits, performing at major hotels in Bombay and Calcutta. Accounts of dance band performances in India during this period suggest that the music served primarily as entertainment for Europeans, and that such performances had no meaningful effect on the indigenous population. However, numerous Indians from Bombay and Calcutta attended jazz performances during this period.[52] Indians indeed promoted jazz in the 1930s and 1940s, most of which was popularized by Maharajahs that discovered jazz in their travels, principally in Paris. Upon their return they arranged for hotels to hire the musicians for parties and other social functions.[53] By the mid-1940s it became increasingly difficult to earn a living playing jazz in India due to the Anti-Apartheid Movement shunning anything affiliated with the West. Many jazz musicians went into film music to assuage lost income.

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[51] Gregory D. Booth, "The Madras Corporation Band: A Story of Social Change and Indigenization," *Asian Music* Vol. 28, No. 1 (Autumn 1996 Winter 1997): 71.

[52] Warren R. Pinckney, " Jazz in India: Perspectives on Historical Development and Musical Acculturation," *Asian Music* 21, no.1 (Autumn/Winter 1989/1990): 36.

Manohari Singh (1931-2010) would become the first major saxophonist in India through his association with the Bollywood film industry. Singh was born in the outskirts of Calcutta into a family of musicians. His father played flute and bagpipes for a local police brass band along with his uncle who played clarinet. In his youth Singh learned flute and clarinet, but would be later drawn to the saxophone. In 1942 he joined the Bata Shoe Company brass band as a flutist under the Hungarian conductor and arranger Joseph Newman. In 1945 Newman left to join the HMV orchestra in Calcutta with Singh and his family following. Singh performed flute, clarinet, and mandolin in the orchestra with most of the repertoire based on Hindi and Bengali songs. During this period Singh studied at the Calcutta School of Music. Like many wind musicians in India, Singh sought alternative performance-affiliated sources of income. The night club scene in Calcutta, dominated by jazz dance bands, influenced Singh's conversion to saxophone. Repertoire performed in this setting was predominantly comprised of American swing band charts, often printed in Western staff notation with occasional sections open for improvisation.

Around mid-20th century the Bollywood film industry was booming, and provided many musicians financial consistency. The multivalent soundscapes constructed by arrangers favored encompassing instrumentation, and fusion of Western and traditional styles. Singh moved to Mumbai in the late 1950s to capitalize on this trend. Though he did not perform Indian classical music, many of Singh's composed and improvised solos were inspired by folk melodies and contained traditional melodic ornaments. Before Singh's rise to popularity the saxophone was associated with entertainment for the Indian upper class and Europeans. He molded a new identity for the saxophone in which it was no longer a dormant instrument but synonymous with Bollywood and consequently the Indian identity.

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[53] Most of the early performers were African Americans, including Leon Abbey and Crickett Smith, or *Goan* musicians, the most popular being Chick Chocolate. The popularity of *Goan* directed dance bands in India throughout the 1930s and 1940s was further propelled through the recording industry. Several *Goan* musicians, including bassist Tony Gonsalves and saxophonists Paul Gonsalves and Rudy Cotton recorded with Indian swing bands during this period.

On the other side of this cross-cultural exchange many Western jazz artists of the modal and free-jazz periods incorporated Indian modality and rhythmic systems to expand their artistic palettes. John Coltrane[54] was one of many saxophonists during the 1960s to go a step further with music drenched in spiritual connotations, hybridizing his unique post-bebop style with cross-cultural implications. Many Western jazz saxophonists, among other musicians, had other takes on processing this new language and incorporating it to fit their stylistic perceptions. Indian instrumentation became frequently implemented with musicians such as Yusef Lateef[55] and Ornette Coleman[56] performing on the *shehnai* and Charlie Mariano[57] on the *nadaswaram*.

Classical saxophonists have yet to tap in to the realm of hybridization through familiarization beyond the Western periphery, but one Indian musician has paved the way for pedagogical hybridity. The Carnatic saxophonist, Kadri Gopalnath (b.1949), developed techniques and a timbral aesthetic in which the saxophone has grown to prominence in Indian classical music. He was born into a family of musicians and was expected to follow the tradition of his father and uncle who were *nagaswaram* performers. However, at an early age Gopalnath's musical aspirations shifted when he heard the sound of a saxophone in one of the brass bands which still flourish in India as a remnant of Imperialism. After purchasing his first saxophone from an Indian manufacturer, Gopalnath received rudimentary instruction from his uncle who played saxophone in a British-style marching band.[58] N. Gopalkrishna Ayer was his first guru at the Kalanikethana Institute, where sounds and techniques were initially learned vocally then applied to the saxophone. [59] He adapted both the instrument and its technique in a way which allowed him to perform all the nuances of South Indian music, a style full of intricate ornaments codified in *kritis* and *keertanas*.[60] His first major concert was given in Madras in 1977, and since then he has concertized extensively across the globe. Gopalnath's collaboration with saxophonist and composer Rudresh Mahanthappa (b.1971) on the 2008 album *Kinsmen* further propelled his visibility as a *guru* of the Carnatic tradition.

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[54] John Coltrane (1926-1967) was an American tenor/soprano saxophonist that performed in several jazz idioms: bebop, hard-bop, modal, avante-garde/free jazz. At the forefront of the free-jazz movement, Coltrane worked with and was influenced by the Hindustani *sitarist* Ravi Shankar.

[55] Yusef Lateef (1920-2013) was a Muslim-American jazz multi-instrumentalist that performed: post-bop, jazz fusion, hard bop, third stream, and world music. Lateef is known for blending Western and Eastern styles through the use of non-western instruments and borrowed rhythmic/melodic language.

[56] Ornette Coleman (1930-2015) was an American jazz multi-instrumentalist most noted for being one of the major innovators during the free jazz movement.

[57] Charlie Mariano (1923-2009) was an Italian American jazz alto saxophonist most noted for his work with Charles Mingus. Mariano moved to Germany in 1971, where he continued shifting to and performing in a world music fusion style.

Through the adaptations of artists like Kadri Gopalnath and Manohari Singh the saxophone is no longer relegated to the fringe of Indian musical trends. It has achieved an identifiable status in India as a contemporary voice perpetuating ancient practices through hybridization and modification. Classical saxophonists have the potential to ascertain what Indian artists identify as saxophone and utilize it in compositions inspired by Indian pedagogy.

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[58] The instruction consisted of basic fingerings within the context of the Carnatic music system of fixed Sa. (Sa, Re, Ga, Ma, Pa, Dha, Ni) with Sa as concert B^b.
[59] Peter Westbrook, "Kadri Gopalnath," *Saxophone Journal 20*, no.6 (May/June 1996): 59.
[60] Ibid, 55.

In order to properly implement the hybridized techniques discussed in this project, a basic understanding of Hindustani and Carnatic performance practices is required by saxophonists. India's music exists within its people as an orally transmitted tradition, with only a rudimentary form of transcription rarely employed. To explain all the musical facts in terms of Western theory, especially its particular aesthetics and divine relationships, requires a great deal of musical exegesis. The two main subgenres of Indian classical music are Carnatic (South India), and Hindustani (North India/Pakistan). Despite their differences in melodic and rhythmic construction, along with instrumentation, several principle concepts unite them into what we identify as the Indian soundscape.

> "Sound is everywhere, within and around us --- a continuum of vital force and latent energy. Only a part of it can be heard: the world of manifest, audible sounds with their individual phonetic, morphological, and semantic distinctions occupies no more than a small fraction of the total field of sound; the greater part is within, unmanifest and beyond the grasp of conscious experience."[61]

The drone is an essential part of Indian classical music, personifying the divine cosmic sound *Om*. *Om* contains in itself the entire phenomenological universe, and serves as the fixed melodic foundation from which *svaras* (notes) emerge and ultimately subside. In order to experience the whole of sound one must embrace the connection and fluidity of the relationship between drone and melody. *Rāgas* (scales/modal subsets) serve as a melodic template, each inducing a specific extrasonic entity: seasons, places, festivals, *rasas* (color or mood). In order to achieve the proper emotional aesthetic attributed to each *rāga*, the soloist performs specific *shrutis* (micro-tones) and *gamakas* (ornaments). *Tālas* (rhythmic cycles) propel this mood through a macro-rhythmic cycle and further accentuate it through micro-rhythmic variation.

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[61] Lewis Rowell, *Music and Musical Thought in Early India* (Chicago: The University of Chicago Press, 1992), 35.

Indian sound conception is multidimensional, permeating both personal and transpersonal consciousness through spheres of regional musical dialects.[62] A unifying medium within this variant sonic realm are Indian timbral aesthetics. Vocal timbre acts as the primary model for musicians' manifestation of sound. A 'beautiful' tone is less important than artistry and musicality.[63] Therefore the quality of resonance can span from a closed timbre, constricted nasal quality, to an open timbre, containing strong tonal weight typically on open vowels. Wind instruments such as the *shehnai* and *nadaswaram* imitate and perpetuate these vocal qualities and serve as a model for other wind instruments' indigenous conceptions.

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[62] Ibid., 41.

[63] 'Beautiful' refers to our Western aesthetic of a pure, annunciated vocalist tone.

CHAPTER 3

Raga Music for Solo Clarinet

John Mayer's composition *Raga Music for Solo Clarinet* is a template for the uninitiated Western performer to begin understanding Indian music, specifically Hindustani. Composed in 1952 and later published in 1958, this work was one of Mayer's earliest compositions illustrating his technique of blending Western and Indian musical traditions. Each movement is constructed from a specific *rāga*, either depicting a time of day or season, providing Western musicians a glimpse of what the actual depth of each *rāga* entails. Mayer stressed his work be approached in a quasi-improvisatory style, hearkening to its roots of Indian origin. With that sentiment in mind, performers can take his vision a step further by incorporating *gamakas* associated with each *rāga*-based movement.

In the score Mayer suggests that the performer use an A-clarinet, however this was most likely a later addition since all movements are constructed on a fixed (*sa*) concert C, and therefore can be assumed to be for B^b-clarinet. Mayer suggested the A-clarinet due to its timbre and lower range hearkening to the human voice, but as discussed in Chapter One the E^b and B^b-clarinets have been incorporated into the Hindustani tradition, with the latter becoming the dominantly preferred instrument at the turn of the 20th century. In order for saxophonists to explore a work influenced by Hindustani music, I have transcribed the work for alto saxophone based around the concept of fixed *sa* (tonic) where A (concert C) serves as the connecting tonic between movements.[64]

During the second half of the 20th century, Mayer made an impact in the fields of classical, jazz fusion, progressive rock, and world music through his unique blending of Western and Indian styles. Poverty would plague Mayer's youth, however his musical aptitude put him at an advantage in receiving handouts for playing violin. By the age of seven, Mayer began studying Western music and taking violin lessons at the Calcutta School of Music with its founder Phillipe Sandre. Despite his parents lacking the resources to send him as a paying pupil, Sandre agreed to teach him during his free time.[65] This instruction was accompanied with the study of Indian *tāla* and *rāga* theoretical concepts with Sanathan Mukerjee who told him to put both styles on an equal footing because he would always have to know more about Western music than Western musicians.[66]

Mayer aspired to become a composer that would be taken seriously both in his home country and abroad. Seeking to escape destitution Mayer knew that knowledge of both genres would be necessary for success. He moved to Bombay during his teens to continue his study of Western music with Mehli Mehta.[67] In order to generate income, Mayer displaced himself into musical genres he knew little about, primarily jazz. Bombay had a bustling night scene since it was the center of the Bollywood film industry which incorporated Indian folk and classical practices alongside Western orchestration and jazz. As a freelance musician, Mayer took several gigs performing jazz percussion, slowly familiarizing himself with a new language that would eventually define his career during the 1960s.

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[64] See Appendix A, pgs.90-93 for the transcription.

[65] John O. Robison, "The Music of John Mayer (1930-2004): A Fusion of Indian with Western Elements," *Intercultural Music* 47 (2007): 148.

[66] Ken Hunt, "John Mayer: Composer Who Creatively Fused Indian and Western Music", The Guardian, entry posted March 12, 2004, http://www.theguardian.com/news/2004/mar/13/gaurdianobituaries.artsobituaries1 (accessed October 14, 2015).

[67] Mehli Mehta (1908-2002) was a violinist and conductor who pioneered Western classical music in India during second quarter of the 20th century. He founded the Bombay Symphony Orchestra in 1935 initially serving as the concertmaster and later conductor.

Mehli Mehta encouraged Mayer to compete for a scholarship to the Royal Academy of Music in London. In 1952, Mayer was awarded a violin scholarship that allowed him to relocate to Britain and attend the Royal Academy of Music where he studied composition with Hungarian pedagogue Matyas Seiber along with comparative music and religion courses in Eastern and Western cultures. Seiber would suggest to Mayer to apply Indian and Western music to the 12-tone system.

By the 1960s, Mayer was known in avant-garde London circles for his work mixing Western and Hindustani classical music. In 1964, the EMI producer Dennis Preston asked him to contribute a jazz composition to an album he was currently working on. Mayer had never written jazz before but accepted the request, broadening his hybrid style to new territories. Producer Ahmet Ertegun was so impressed by Mayer's work "Nine for Bacon," leading him to purpose a full album's worth of Mayer's compositions combining Indian and jazz idioms. In 1965 Mayer was able to finally earn a living from his compositions and quit full-time orchestral playing with the Royal Liverpool Philharmonic at which time the group Indo-Jazz Fusions was born. Indo-Jazz Fusions was comprised of ten musicians separated into two quintets, one jazz (alto sax, trumpet, piano, bass, and drums) and the other Indian (violin/harpsichord, flute, sitar, table, and tambūra). The success of the group manifested from the kinship of its leaders, Jamaican-born saxophonist Joe Harriott[68] and John Mayer, along with the West's growing interest in Indian music. The repertoire was composed and arranged by John Mayer, featuring a soundscape developed by Indian and jazz rhythm sections over the drone of the *tambūra*. Works were placed in a *tāla* (rhythmic cycle) or an irregular Western time signature with the soloist improvising over precise *rāga* structures. Though their first album *Indo-Jazz Suite* (1965) was an unexpected success, the two quintets never fully coalesced due to Jazz musicians' unfamiliarity with Indian rhythmic cycles and tonality, and Mayer's inexperience with jazz composition. Hybridity of styles required deeper understandings of cross-cultural exchange. Their second and most successful album *Indo-Jazz Fusions* (1966) was a more concerted effort to achieve a true hybridity where styles accentuate and support one another on an even plain. *Indo-Jazz Fusions* is the first time "fusions" was used to label an intertwining of Western and Eastern styles, and certainly wouldn't be the last. The group would continue to perform throughout Europe until Joe Harriott's untimely death in 1973.

One of John Mayer's earliest works which fused Indian classical musical language into a Western compositional idiom was *Raga Music for Solo Clarinet* (1958). The fusion of musical styles from two opposing cultures in a Western genre complicates the matter of authenticity. When performed must we solely approach it from our pedagogical notions of classical etiquette, or does an authentic performance include cross-cultural practices? Musicians who perform non-Western influenced compositions with a complementary perspective facilitate interpretive hybridization. Understanding the foundational elements of Hindustani music is necessary to perform *Raga Music for Solo Clarinet* from this viewpoint.

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[68] Joe Harriott (1928-1973) was a Jamaican jazz alto saxophonist that predominantly performed bebop and free-jazz idioms.

Hindustani Music

There are several *rāga* classification systems constructed by Indian and Western musicologists, many of which potentially contradict one another. The most common source from which mid-20th century composers and musicologists drew inspiration was Vishnu Narayan Bhakthande's (1860-1936) classification system. Bhatkhande's monumental study on Hindustani music was constructed through field research that encompassed hundreds of classical and folk songs grouped by *rāga*. Bhatkhande's classification is based on ten heptatonic scale types, called *thāts*.[69] The framework for classification is based on a scale that includes two invariable notes *sa* (tonic) and *pa* (fifth) with either the natural or altered version of variable notes *re* (second), *ga* (third), *ma* (forth), *dha* (sixth), and *ni* (seventh). *Thāts* do not evoke *rasa* (emotions) and simply serve as a means to group *rāgas* based on *svara* (note) relationships. Though this system has its inconsistences where certain *rāgas* cannot be attributed a specific *thāt* either due to more than one spelling of the same pitch or hexatonic/pentatonic *rāgas* missing key notes for classification, the *thāt* system is only to serve as a skeleton devoid of the deeper emotional and historical context of *rāgas*.

> "The heart of Hindustani music training is learning to render melody freely and spontaneously in various ragas. Ragas are distinctive melodic worlds full of characteristic color, affect, and motion, encompassing many compositions and a wide scope for improvised elaboration…"[70]

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[69] Joep Bor, *The Raga Guide: A Survey of 74 Hindustani Ragas* (Monmouth, UK: Wyastone Estate Ltd., 2002), 3.

[70] Matthew Rahaim, *Musicking Bodies: Gesture and Voice in Hindustani Music* (Middletown, CT: Wesleyan University Press, 2012), 53.

Often many Western theorists, performers and composers treat *rāgas* as grammars that fundamentally organize notes. However, on a deeper level they are distinctive spaces for melodic motion. *Svaras* (notes) are not fixed points but tonal areas shrouded in timbral colors. Each *rāga* serves as a melodic foundation for musicians, containing characteristic phrases, intervallic relationships, and areas of melodic weight, energy, and tension.[71] From this template musicians improvise within the *rāga*, where distinctive spaces (*jagahs*) are explored anew each time and brought to life in the living moment.[72] There are four facets of melodic development that assist in evoking a certain mood: prominence of fixed notes, sequence of a particular note, prominence of one note, and fixed *svara* combinations.

> "…it is art only when it goes beyond the cerebral into the realm of the heart….with the addition of the soul, it goes beyond art and becomes part of the cosmic essence."[73]

The coordination of *rāgas* and *rasas* is the chief peculiarity in Indian music. Even the individual tones and microtones have their specific sentiments while a single *rāga* may evoke unitary or multiple sentiments simultaneously.[74] Phrases of a *rāga* often start and end with either the *vadi*[75] (leading note) or *samvadi*[76] (sub-leading) from which *anuvadi*[77] (concordant) and *vivadi*[78] (discordant) note relationships establish and potentially alter the predominant sentiment of a given *rāga*.[79]

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[71] Ibid, 55.

[72] Sheila Dhar, *The Cooking of Music* (New Delhi: Permanent Black, 2001), 22.

[73] Chitravina N. Ravikiran, "Rasa Theory," *Journal of International Music Society 40* (2009-2010): 210.

[74] Muthuswamy Hariharan and Gowri Kuppuswamy, " Emotional Perspectives of Indian Music in Relation to Behavioral Attitudes," *Indian Musicological Society* 34 (2003): 32.

[75] Predominant note from which all variations begin and end, it is always accentuated and bears long pauses. The expression of the *vādī* is the predominant expression of the *rāga*.

[76] Responds and accentuates the *vādī*. Typically a fourth or fifth above it. *Panchama samvādi rāgas* have a clear, active, brilliant expression; *madhyama samvādi rāgas* are passive, dormant, and soft.

[77] Notes of a mode that are neither "sonant" or "consonant", therefore "assonant."

[78] Notes that do not belong to a *rāga*, or, if they do, are used in defiance of its rules. "Dissonant" notes that destroy expression.

[79] In Western context it is similar to the relationship between consonance and dissonance.

> “The primary emotion inherent in the work itself (*bhāva*) and the response created in the spectator (*rasa*) are considered to be two different emotional phenomena….the term *rasa* is assumed to represent both primary and responding emotions….At times it may happen that *bhava* and *rasa* do not represent related moods but create sentiments of a different nature.”[80]

There are nine *rasas* naturally associated with *rāgas*: devotion (*bhakti*), erotic/divine love (*shringar*), compassion (*karuna*), peace (*shanti*), joy/laughter (*hasya*), courage (*vir*), solemnity (*gambhir*), playfulness (*chanchal*), and renunciation (*tyag*). *Rasas* correlate with the time a *rāga* is performed thus determining the type of ornamentation used, and *tāla* it is set to.[81] *Shrutis* or microtones are used to evoke a specific *rasa* aesthetic. Though it is highly debated, standard practice describes 22 *shrutis* in an octave, however there are many more possibilities on a microtonal level.

Shrutis are not necessarily quarter tones and rarely split notes evenly in our equal-tempered system. Placement is an approximation determined by the performer’s *guru-shishya parampara* (lineage of teachers and disciples), and only used in an ornamental capacity either through *meendh* (glides) or *andolan* (oscillation of a note through *meendh*). Roughly translated as portamento, *meendh* are used to bring out *shrutis*, however it is imperative to not introduce a note foreign to the *rāga* making it more specific than portamento. *Meendh* should sound like a smooth curve, and define the characteristic movements of a *rāga*.[82] Oscillation (*andolan*) is performed through a *meendh* from a note above to a note below with at least one repetition. However, this is not like a grace note in that it is slower, and gives the effect of undulation.

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[80] Walter Kaufmann, “Rasa, Raga-Mala and Performance Times in North Indian Ragas,” *Ethnomusicology* 9, no. 3 (September, 1965): 272.
[81] Ruckert, *Introduction to the Classical Music of North India*, 260.
[82] Shanti Ravel, *The Adaptation of Clarinet to Hindustani Music: The Playing Style of Master Ebrahim* (New York: NYU, 2009), 96.

Hybridized Approach

Selected movements from *Raga Music for Solo Clarinet* serve as an example of how the melodic language of North Indian *rāgas* shifts throughout the course of a day evoking different *rasas*. The four selections "Vibhasa (Sunrise)", "Shri (Afternoon)", "Puravi (End of Day)" and "Kanada (In the deep of Night)" are meant to be performed in succession in this nine-movement work. The movements are separated as their own individual entities with inclusion of specific drones attributed to each *rāga* to evoke 'proper' *rasa* sentiments. *Gamakas* John Mayer composed in each selection are discussed followed by the implementation of other ornaments associated with the given *rāga*.

The third movement, "Vibhasa (Sunrise)", is a pentatonic (*audava*) scale derived from the *thāt* (mode) *mārvā* (**Fig. 3-1**).

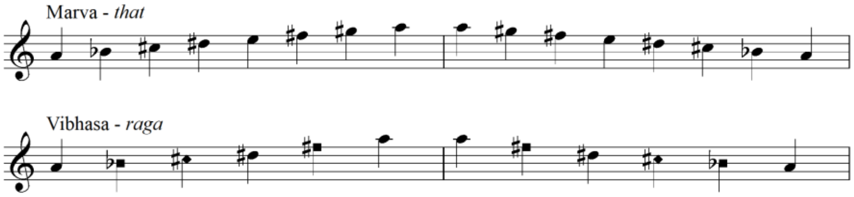

Fig. 3-1

Vibhasa's inherent expression reflects the loveliness of early dawn, with ornamentations (*gamakas*) that hearken to the ephemeral environmental state such as the twittering of birds. The absence of the fifth (E)[83] and seventh ($G^{\#}$) is its primary feature to represent the absence of the sun that has yet to rise. The drone is the scope of a fifth displaced to F# (*dha*) and C# (*ga*). Melodic movements are slow and dignified and take place mainly in the upper tetrachord.[84]

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[83] Some interpretations leave out the forth ($D^{\#}$) instead of the fifth with the same sentiment in mind.

[84] Joep Bor, *The Raga Guide: A Survey of 74 Hindustani Ragas*, (Monmouth, UK: Wyastone Estate Ltd., 2002), 46.

Mayer incorporates several proper *gamakas* affiliated with *rāga vibhasa*, demonstrating fair knowledge of standard performance practices of the time. The opening *gamaka* is known as a *murki* (**Fig. 3-2**).

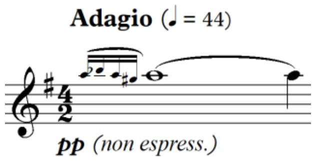

Fig. 3-2

Murki are to be performed in a fast and delicate manner similar to a mordent, however they contain two to eight notes. The ornamental inclusion of the G# (*ni*) is the only point in the entire movement in which the seventh is performed. Mayer, like many composers who have transferred Indian techniques to Western notation, was attempting to replicate the micro-tonal undulation that rests lightly below *sa* (tonic) in *vibhasa*. Saxophonists can replicate a technique commonly performed by *shehnai* musicians, where performers quickly ascend to the upper neighbor-tone and return to the tonic lightly bending below either through voicing, alternate fingering, or delicately lowering the jaw then returning to *sa* (tonic). This serves a dual role in highlighting a key note of the *rāga* and bringing out the *shruti*(*s*) that accentuate its presence.

Often referred to as *bibhas*, *vibhasa* has several different variations through contrasting schools of thought, most of which express the same sentiment but with slightly altered melodic language. [85] John Mayer more than likely drew influence from Bhatkhande's treatise assimilating *rāgas*. However, the treatise includes the *ni* (G#) and

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[85] Vibhasa (bibhas) is not performed as often today as it was at the turn of the 20th century, and the possibilities of evolution through oral tradition play a part in its current state of interpretation. Contemporary performers use the fifth (pa) in place of the forth (ma) and a minor sixth (dha) instead of major. The minor sixth may have evolved out of standard practice where the major sixth was performed flat to bring out shruti.

pa (E) in the scalar descent, denoting this melodic content is used in microtonal accentuations to evoke a specific *rasa*.

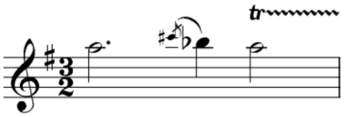

Fig. 3-3

Measure three (**Fig. 3-3**) is a mixed *gamaka*. The single grace note, or *kampita*, is an inflection that occurs before or after an articulated note.[86] Many *rāgas* integrate *kampita* in *rasa* development, but are only used with specific melodic relationships associated within a *rāga* and are not meant to be used indiscriminately. The trill is a Western interpretation of a vocal oscillation referred to as *andolan*. *Andolan* are to be performed in a slow, gentle fashion between two notes, from which the primary note touches on the periphery of the adjacent note in question but never quite reaches it, thus bringing out the microtones. It is within reason for Mayer to use a trill in this case, since Indian-adopted Western instruments like the harmonium[87] do not have the ability to produce notes on the microtonal level and use 'trills' as a viable replacement. However, like other *gamakas* it is to be utilized for specific notes within a *rāga*. In *rāga vibhasa* B^b (*ri-komal*) is never to be fully accentuated and the use of *andolan* from A (*sa*) to B^b (*ri-komal*) is a common performance trait that is only found in this movement (**Fig. 3-3)**. Saxophonists have the flexibility to perform *andolan* like *shehnai* performers through the use of wide vibrato or timbre trills.[88]

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[86] Joep Bor, *The Raga Guide: A Survey of 74 Hindustani Ragas* (Monmouth, UK: Wyastone Estate Ltd., 2002), vii.

[87] A portable reed organ that's sound is generated with bellows

[88] An option for high A is to finger it with the lower three tone-holes on the bottom stack closed. This adds a raised brighter timbre from which the performer can play a wide variant reminiscent of early to mid-20th century vibrato.

There is room to incorporate other *gamakas* often ascribed to this *rāga* in performance practice. These are not meant to quell Mayer's earliest vision of Western and Indian assimilation but to further validate his vision of musical synthesis without overwhelming the music with unnecessary ornamentation. A *gamaka* relationship associated with *vibhasa* is the slow-continuous slide or *meendh* from F# (*dha*) to A (*sa*), reflecting the night. There are two ideal points, m.4 and mm. 10-11 (**Fig. 3-4**), where this can be utilized to properly illustrate Hindustani influence and *rāga* aesthetics. *Meendh* are often represented by portamento markings in Western notation, however it is pertinent to Hindustani performance practice to not linger on or bring out notes not affiliated with the *rāga*.

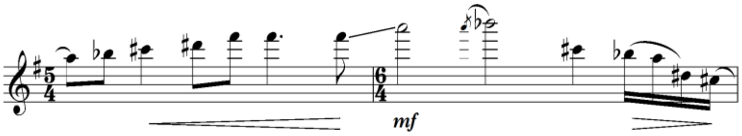

Fig. 3-4

Occasionally *gamakas* are performed in succession or combined (mixed *gamakas*) based on prior melodic motion. When *meendh* from $F^{\#}$ (*dha*) to A (*sa*) is followed by ascension to B^{b} (*ri-komal*) in the *rāga vibhasa* a *kampita* A (*sa*) is integrated to accentuate *ri-komal*.

The fifth movement, “Shri (Afternoon)", of *Raga Music for Solo Clarinet* is based on the *rāga shri* (**Fig. 3-5**). *Rāga shri* is performed the second part of the afternoon close to or after sunset during the winter. It has a pentatonic (*audava*) ascent and heptatonic (*sampūrna*) descent, in this case $C^{\#}$ (*ga*) and F (*dha-komal*) are excluded in the ascent (*āroha*). The *vādī*, B^{b} (*ri-komal*) and *samvādī*, E (*pa*) provide the drone. Drones of a tritone are meant to add tension that reflect an environmental or emotional shift, in this case the imminent sunset.

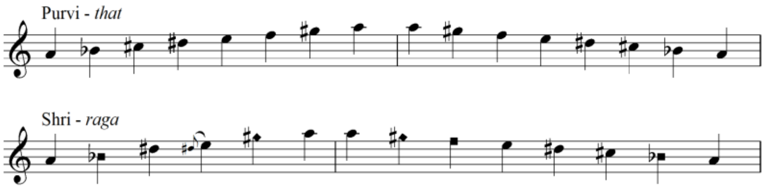

Fig. 3-5

Gamakas, such as the *kampita* from D$^{\#}$ (*ma*) to E (*pa*) in *shri*, are often incorporated in scales to ascribe a specific *rāga's* identification. The *kampita* found in *shri* can also be executed by means of oscillation on E (*pa*) with a slight undulation below returning to *pa* to bring out the *shrutis*. This technique is used in descent, and saxophonists can incorporate it in this movement in m.2 and m.10 lightly bending below and returning to E (*pa*) before proceeding with melodic development.[89]

Raga shri is often considered one of the most difficult *rāgas* to perform due to its complex melodic movements which involve large intervals, long glides and various embellishments.[90] Often a scalar imbalance like the one in *shri* becomes the focal point of melodic development in which one of the two notes is not firmly fixed in the *rāga*, in this case B^{b} and F.[91] Mayer brings out two specific traits associated with this *rāga* in the fifth movement "Shri (Afternoon)". Large leaps and the *kampita* from D$^{\#}$ to E are used extensively as seen in mm.7-12 (**Fig. 3-6**).

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[89] Musicians should be careful not to over emphasize the motion. It should simply pass by as a subtle continuation of melody.

[90] Joep Bor, *The Raga Guide: A Survey of 74 Hindustani Ragas* (Monmouth, UK: Wyastone Estate Ltd., 2002), 146.

[91] N.A. Jairazbhoy, *The Rāgs of North Indian Music* (Middletown, CT: Wesleyan University Press, 1971), 169.

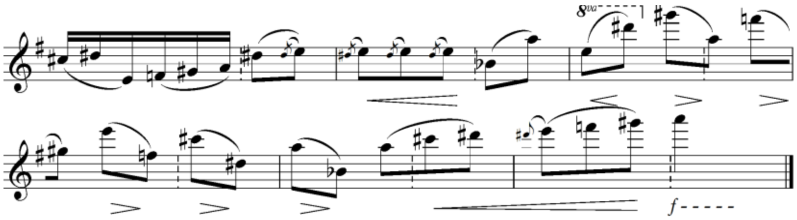

Fig. 3-6

The vertical dotted lines in the measures of this movement hearken to *tāla* groupings which Mayer displaced in a 5/8 time signature. The *tāla jhampak* (3+2) can be inferred but is inconsequential in an unaccompanied work. However, these groupings do serve a purpose either emphasizing key notes of the *rāga* or displacing the melody through irregular groupings.[92]

Interplay of dual-note spellings and oblique scalar motion takes precedence in *rāgas* as the day shifts to night. The seventh movement, "Puravi (End of Day)", reflects this aesthetic with a melodic construction that can be described as a mixed chromatic and diatonic scale.

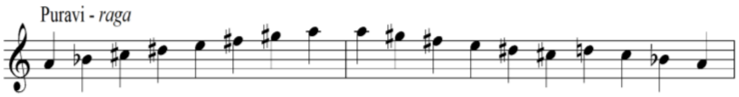

Fig. 3-7

Puravi (**Fig. 3-7**) was considered a derivative of the *thāt marva* (**Fig. 3-1**) when *Raga Music for Solo Clarinet* was composed. In contemporary trends it is referred to as *purvi* and evolved to having a minor sixth (*dha-komal*) as a derivative of the *thāt bhairav* (**Fig. 3-8**).

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[92] Primary characteristic of *rāga* performances where time and melody temporarily disassociate from one another.

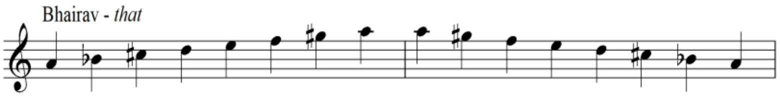

Fig. 3-8

Classification of a *rāga* to their parent *thāt* can lead to different interpretations due to the ambiguity of two spellings of a specific pitch.

Puravi is regarded by most musicians to express wisdom and detachment. E (*pa*) gives strength with D (*ma*) and D$^{\#}$ (*ma*) accentuating phrases to bring about abundant virtuous and energetic expression as opposed to B^{b} (*ri-komal*) which is very tender.[93] The third (*ga* – C$^{\#}$) is the most accentuated note also serving as the drone accompanied by G$^{\#}$ (*ni*).

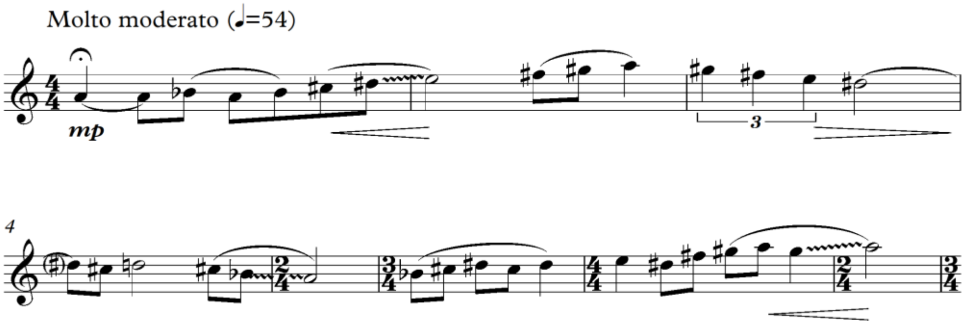

Fig. 3-9

Mayer incorporates many of these traits in this movement including glissando that are to be performed slow and at the performer's discretion akin to *meendh* (**Fig. 3-9**). Saxophonists can implement these Hindustani techniques a step further by treating the lower neighbor-tone motions from either B^{b} (*ri-komal*), D (*ma*), or D$^{\#}$ (*ma*) as light bends similar to *andolan*. Motion should be slow and dignified without over accentuation.

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[93] Alain Daniélou, *The Rāga-s of Northern Indian Music* (New Delhi: Munshiram Manoharlal Publishers Pvt. Ltd, 2010), 248.

Movement seven, “Puravi (End of Day)”, and the following movement, “Kanada (In the deep of Night)”, are John Mayer’s best examples of including authentic phrasing and ornamentation associated with their *rāgas*. The eighth movement, “Kanada (In the deep of Night),” is constructed from the *rāga kanada* which is a natural minor scale in Western context. As the day progresses to late night *rāgas*’ tension through chromaticism fades to reflect the somber state that is late night. *Kanada* (**Fig. 3-10**) was the first and foremost *rāga* of the Mughal and Deccani court musicians of the 16th and 17th centuries. *Ragamala* paintings often portray a victorious king who has killed an elephant and holds a sword and an elephant’s tusk in his hands.

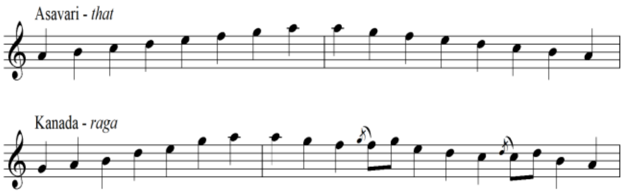

Fig. 3-10

Kanada is derived from *karnata*, which implies that it originated from South India. Though there is an exchange of *rāga* material from North and South Indian classical traditions, often the melodic material takes on new aesthetics either in *rasa* sentiments, *gamaka* aesthetics, or *tāla* accompaniment.

This *rāga* is another example of how melodic material in Indian music does not follow our Western standards of scalar ascent and descent. Based on mood and *rasa* aesthetics, several *rāgas* such as *kanada* start below the tonic. Mayer takes this into consideration at the beginning of the eighth movement (**Fig. 3-11**).

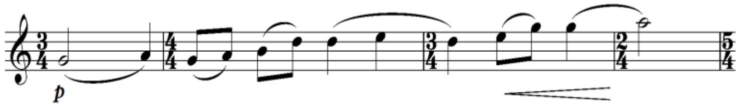

Fig. 3-11

This *rāga's* overall expression is deep emotion and satisfaction with some happiness and passion.[94] The most articulated notes are *re* (B) and *pa* (E) which also serve as the drone. *Ga* (C) and *dha* (F) are typically omitted in ascent, returning in an oblique descent.

In typical performance practice one should never linger on *dha*, and *ga* often appears in the distinctive *kanada* phrase *ga* (C), *ma* (D), *re* (B), *sa* (A). Mayer cleverly incorporates this motive two times in mm. 6-7 and 23-24 (**Fig. 3-12**) with a variation occurring in mm. 13-15 through prolongation of *re*.

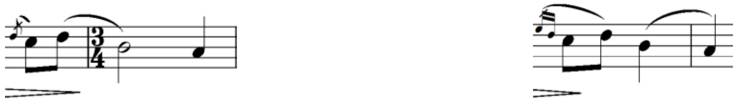

Fig. 3-12

Mayer's background understanding of standard *rāga* practices can be taken a step further with inclusion of one other key *gamaka* feature associated with *kanada*. Often musicians connect *ni* (G) to *sa* (A) through *meend* during the oblique descent serving to evoke the *rasa* passion. This can be used three separate occasions in the eighth movement including mm. 5-6, m. 13, and mm. 21-22 (**Fig. 3-13**).

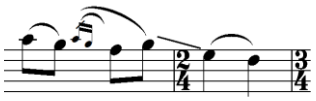

Fig. 3-13

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[94] Alain Daniélou, *The Rāga-s of Northern Indian Music*, (New Delhi: Munshiram Manoharlal Publishers Pvt. Ltd. 2010), 311.

Each movement of *Raga Music for Solo Clarinet* presents the performer with a hybrid construction that through deeper understandings of foundational material can unlock new potential in our Western classical idiom. Despite each movement having a specific drone when separated, performers can link each movement together through the drone of the tonic (concert C) on an electronic shruti box or *tambūra*. Saxophonists have much to gain from studying this work in that we possess the classical techniques necessary to perform authentic Hindustani practices.[95] A new soundscape can be generated by applying both Western classical saxophone techniques and Hindustani *gamaka*/*shruti* practices. It is my hope that by including the transcription of select movements of this work in Appendix A, classical saxophonists can take advantage of the opportunity to explore this hybridized soundscape.

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[95] voice bending, timbral and quarter tone fingerings

CHAPTER 4

Gavambodi 2

Gavambodi 2 (1969) for saxophone and piano by Jacques Charpentier (b.1933) is the first composition for classical saxophone to draw direct influence from the Carnatic music language of South India. Charpentier's integration of Indian musical elements within the context of classical saxophone repertoire was unprecedented. *Gavambodi 2* not only provides the Western classical saxophonist a glimpse of a non-Western tradition, but facilitates untapped possibilities of musio-cultural synthesis. Through general understanding of South Indian classical practices accompanied by pedagogical nuances performers incorporate in *mēla gavambodhi* (*geervani*), classical saxophonists have the potential to integrate a hybridized interpretation that reflects both Western and Indian music traditions.

Jacques Charpentier's Compositional Influences

In order to dissect the culmination of influences contained in *Gavambodi 2* one must examine the compositional development of French organist/composer Jacques Charpentier. Jacques Charpentier's first encounters with the saxophone occurred while he was studying composition with Jeanine Rueff[96] in the early 1950s before departing to India in 1953. He spent 18 months in Bombay and Calcutta in 1953/4 studying both Hindustani and Carnatic music. Upon his return he attended the Paris Conservatory to study composition with Tony Aubin and musical analysis with Olivier Messiaen.

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[96] (1922-1999) Composer at the Paris Conservatory that assisted the saxophone class under the instruction of Marcel Mule and later taught solfege and sight-singing.

Charpentier drew most of his influence from the music philosophies of Messiaen. Messiaen would prove to be one of the most pivotal figures of the 20th century to stress rhythm as an integral foundation of composition, searching for means beyond the constrictions of tone in Western music.[97] Specifically he used *deçi-tâlas* compiled by 13th-century Indian theorist Śārngadeva (Çârngadeva), which he first discovered in Albert Lavignac's *Encyclopedia de la Musique*.[98] Contrary to standard classical Indian performance practices Messiaen would use multiple cycles in a single composition, not necessarily in their authentic form, often subject to layering, augmentation and diminution. Messiaen also used Hindustani and Carnatic modes in compositions but only as a means of color, never solely composing with a specific *rāga*. Jacques Charpentier would take this rhythmic concept a step further with the addition of the *mēlakarta rāga*[99] system. Messiaen's harmonic language and applied concepts of the *deçi-tâla* system would serve as a foundation for Charpentier's diffusion of South Indian modality.

Several of Charpentier's works display attempts to synthesize Western and Eastern traditions including: *Gavambodi 2* (1969) for alto saxophone and piano, his third symphony *Shiva Nataraja* (1969), and 72 *Études Karnatiques* (1957-1984) for solo piano. 72 *Études Karnatiques* is considered Charpentier's greatest achievement in the amalgamation of these styles as a massive work consisting of twelve cycles (based on twelve chakras).[100]

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[97] Jean Boivin, "Musical analysis according to Messiaen: a critical view of a most original approach," *Olivier Messiaen: Music, Art and Literature*, ed. Christopher Dingle and Nigel Simeone (Burlington, VT: Ashgate 2007), 148.

[98] Ibid, 149.

[99] Seven note scale from which *janya* ragas are derived.

[100] Discussed on page 46.

Contrasting John Mayer's fusion of Hindustani elements within Western forms and harmonic language, as discussed in Chapter Three, Charpentier's compositions predominantly incorporate modes and rhythms from the Carnatic tradition. His interpretations of traditional practices were based on peripheral accessibility, with the one exception being his 18-month stay in India. Carnatic pedagogy has similar concepts but different theoretical constructions than Hindustani music. [101] A fundamental understanding of basic Carnatic practices is necessary to initiate deeper levels of hybrid performance aesthetics.

Carnatic Music

The classical music of South India, or Carnatic music, has a rich history embedded in the religions and cultures of the Indian subcontinent. Despite its many differences from Western music, there are practices that harmonize with our own. Carnatic music concerts feature performances of completely composed devotional songs, most created by prodigious musicians of the past. Though these compositions are interspersed with vastly structured types and forms of improvisation, there is a large concert repertoire of pieces that provide a standard performance framework within a variety of distinct traditions and styles. Carnatic music is comprised of many different musical forms, the most prevalent are the *varnam*[102], *kirtana*[103], and *kriti*[104]. Rules and practices differ from the West in that they do not pertain to harmony or counterpoint but are rather codified into two structural concepts: *rāga* (melody) and *tāla* (rhythm). *Rāgas* are partially ordered sets of pitch-classes, each with its own set of *lakshanas* (structural features). *Rāga lakshanas* specify a *rāga*'s repertoire of pitches (which can vary in number from four to twelve), its ascending and descending melodic patterns, characteristic motives and phrases (called *sancharis*), beginning, cadential, and stressed (*jiva*) pitches, and melodic ornamentation.[105]

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[101] Rāgas and *tālas*

[102] Carnatic composition that enhances technical facility through note patterns within *tāla*. Usually in three sections similar to *kriti*.

[103] Composition in Carnatic music similar to *kriti* in form but emphasizes *bhakti* (devotion). Text takes precedence over aesthetic value of music.

[104] Composition in Carnatic music divided into three sections: *pallavi*, *anupallavi*, and *charana*. Stresses aesthetic value of music rather than text, which usually has a devotional theme.

Charpentier's melodic framework for his works *72 Études Karnatiques* and *Gavambodi 2* is drawn from the South Indian *mēlakarta* system. *Mēlas* are divided into twelve groups of six *rāgas* with each group pertaining to one of the 12 *chakras*. The *chakra* system serves as a mnemonic device for musicians where each *chakra* refers to the structure of the first tetrachord in each *rāga*. Each *rāga* has a series of seven notes in its ascent (*arohana*) and descent (*avarohana*) and must possess certain characteristic features. A *rāga's* melodic potential is based on at least five resources: (1) the parent scale or *mēla*; (2) various specified melodic motion, summarized in a specific ascending and descending scale pattern; (3) the hierarchy of the notes of the *rāga*; (4) melodic ornamentation or *gamakas*; and (5) typical and significant melodic phrases.[106] *Rāgas* in the *mēlakarta* system are organized by tetrachordal relationships where the tonic (*sa*) and fifth (*pa*) are unaltered with the remaining scale degrees exploring all possible permutations and combinations.[107]

Charpentier carefully considered the organization of the *mēlakarta* system when constructing *72 Études Karnatiques* (1957-1984), representing one of his greatest compositional achievements in the amalgamation of Western and Indian musical practices. Each etude has its own unique character exploring a range of timbres and dynamics. There are twelve volumes total (based on the twelve chakras), each containing six etudes constructed from one of the six *mēlas* ascribed to the *chakra*. Despite not being published until 1984, *Gavambodi* was composed prior to *Gavambodi 2*.

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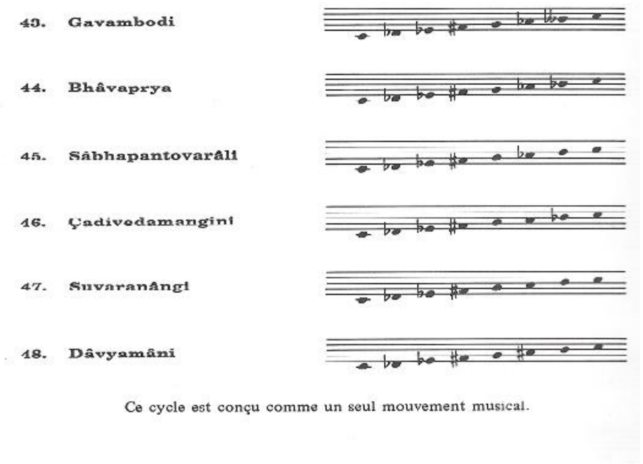
[105] Robert Morris, "Variation and Process in South Indian Music: Some Kriti s and their Sangati s," *Music Theory Spectrum* 23, no. 1 (Spring 2001), 75.

[106] Robert Morris and Chitravina N. Ravikiran, "Ravikiran's Concept of Melharmony: An Inquiry into Harmony in South Indian Ragas," *Music Theory Spectrum* 28, no.2 (Fall 2006): 256.

[107] S. Bhagyalekshmy, *Ragas in Carnatic Music*, (Trivandrum, India: CBH Publications 1994) 34.

"Gavambodi" from *72 Études Karnatiques*

Figure 4-1 is from volume eight of Charpentier's *72 Études Karnatiques. Gavambodi* belongs to the eighth *chakra*, *Vasu*, which refers to the eight Vedic demi Gods: Indra (East, for pleasure), Agni (South-east, for Energy), Yama (South, Death), Niruddhi (South-West, war), Varuna (West, ocean), Vayu (North-West, air), Kuber (North, wealth), and Isana (North-East, knowledge). The lower tetrachord (C, D^b, E^b, $F^\#$) connects each *rāga*, however the upper tetrachord makes each one distinct. The second tetrachord in each *rāga* of the *mēla* system cycles every six, therefore Gavambodi's second tetrachord relates to *mēlas* 1,7, 13, 19, 25 etc. and initiates a new *chakra* rotation of six initial tetrachordal related *rāgas*.



Ce cycle est conçu comme un seul mouvement musical.

Fig. 4-1

It is imperative to take note of the labeling system Charpentier used in his construction of *72 Études Karnatiques*. The *mēla* label *gavambodi* means he drew from the modern 72 *mēlakarta* system codified by Govinda Dikshithar[108] to *sampoorna*[109] *mēla* names. Currently there are two classifications still in use today with *sampoorna mēlas* most commonly used over the *asampoorna*[110] *mēla* system codified by Venkitamakhi in the 17th century. *Rāga* classification in both systems remains relatively the same with the key difference being the ascribed name. This factor is important when considering *mēla gavambodi* in that it is often performed under different guises through regional practices. The *sampoorna mēla gavambodi* (*gavambodhi*) is known as *geervani* (*girvani*) in the *asampoorna mēla* system. *Gavambodi* has several *janya rāgas* (**Fig. 4-2**) which are variations of the parent *mēla's* melodic material.[111] The bracketed scalar sections in **figure 4-2** are defining features of the *janya rāga* referred to as *vakra*[112].

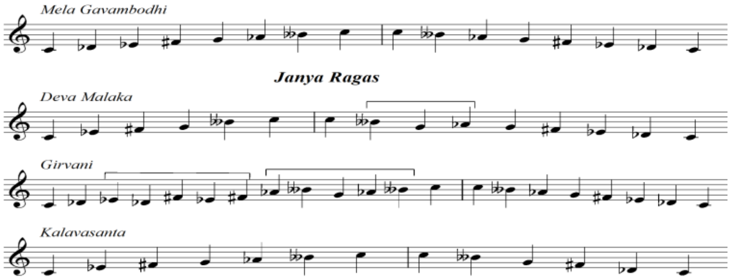


Fig. 4-2

The piano etude (**Fig. 4-3**) provides insight on Charpentier's hybridization of Indian and Western traditions. Charpentier evokes the Indian classical soundscape in

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[108] Dikshitar (1776-1835) was responsible for elevating the status of Carnatic repertoire with innumerable *kritis* composed in the traditional style.
[109] A *rāga* that has all seven notes in ascent and descent.
[110] Similar to the *sampoorna* system but with subtle differences in scalar rendition such as repeated and/or skipped notes.
[111] Note how *janya rāgas* are variations of scalar ascent and descent, not the pitches themselves.
[112] Zig-zag motion in scalar ascent or descent that sometimes skips a pitch.

Gavambodi (C, D^{b}, E^{b}, F$^{\#}$, G, A^{b}, B^{bb}) with the sustainment of the pedal tonic (drone) upon which he gradually introduces each note of the *rāga* in ascent.

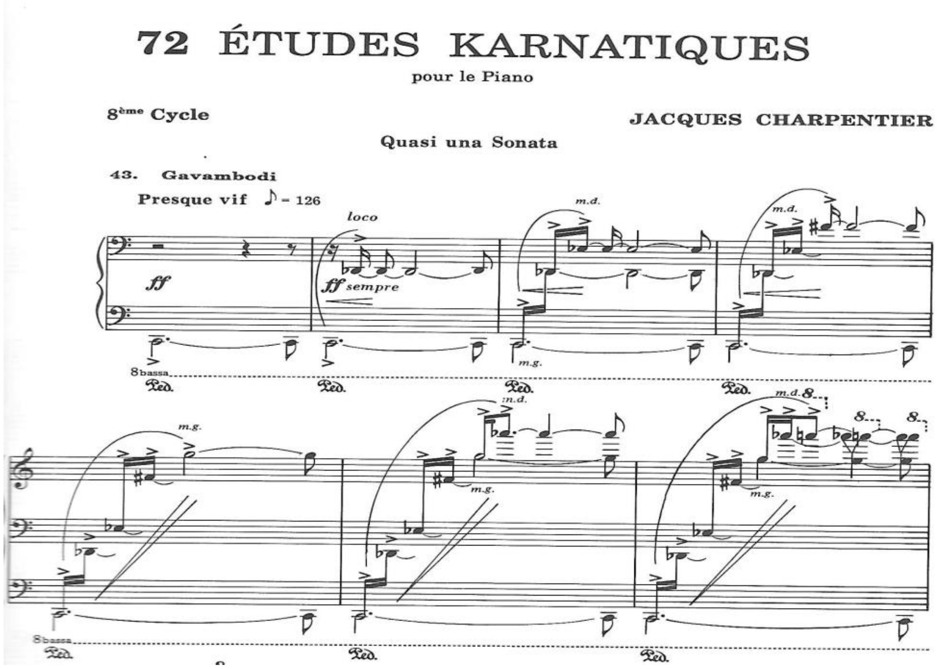
72 ÉTUDES KARNATIQUES
pour le Piano
8ème Cycle
JACQUES CHARPENTIER
Quasi una Sonata
43. Gavambodi
Presque vif ♪ = 126
loco
ff
ff sempre
m.d.
m.g.
8bassa
Ped.

Fig. 4-3

The entire etude never deviates from the melodic material in which it is constructed, displaying compositional regard to the Indian performance practice of not integrating notes foreign to the *rāga*. Charpentier takes a much different approach in disseminating this material in *Gavambodi 2*.

Gavambodi 2

Gavambodi 2 for saxophone and piano is divided into three parts: *lent et soutenu*, *plus vif*, and *plus lent*. This form is reminiscent of three-part forms found in Carnatic *kriti* and *keertana* but with the major discrepancy being a slow conclusion. Charpentier incorporates techniques found in *72 Études Karnatiques* including rhythmic displacement, angular melodies, and dissonant chords illuminating his hybridity between Western and Indian styles. The most important difference between the two works is the melodic material for which *Gavambodi 2* is attributed, though *mēla* name and number are retained.

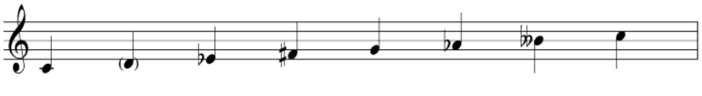

Fig. 4-4

The initial tetrachord (**Fig. 4-4**) in the *mēla* classification system is different with D natural in place of D^{b}. Despite borrowing rhythmic material from his piano etude, the mode on which *Gavambodi 2* is based is not *mēla gavambodi* but *mēla syamalangi*. However, *Gavambodi 2* does not contain any borrowed material from the piano etude constructed from *mēla syamalangi*. This is not merely a misprint of the *rāga*, such as the 1984 version with a B^{b} instead of a B^{bb} in the *Gavambodi 2* piano score, but serves as a framework for the entire piece.

The opening of the composition, *lent et soutenu*, is reminiscent of the *alap* section in *rāga* development.[113] Charpentier slowly outlines the *rāga* with subtle graces evoking the Indian *gamaka* (ornamentation) performance practice *kampita* (**Fig. 4-5**).

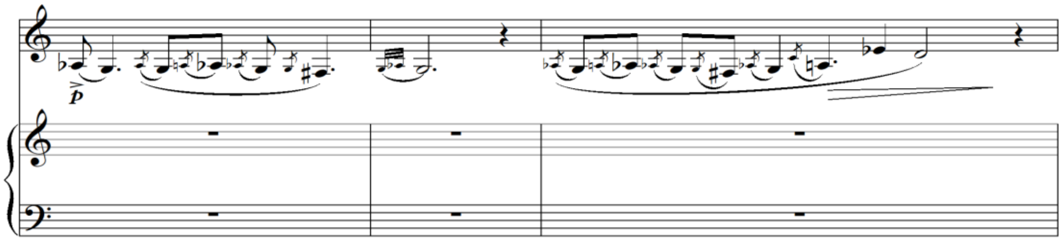

Fig. 4-5

Emphasis of the tonic or dominant through various *gamakas* is common practice in Indian music, where subtle melodic movements are associated with a *rāga's* identity.

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[113] *Alap* is commonly referred to as the *ragam* section in Carnatic music.

Throughout the opening section the saxophone and piano exchange dialogue rarely deviating from the melodic material concert (C, D, E^{b}, F$^{\#}$, G, A^{b}, B^{bb}).

The piano first enters in m. 7 with a descending melodic figure that returns in mm. 13-14. Soloists often outline the *rāga* through ascent/descent in the *alap* section of *rāga* development, however Charpentier only uses a descending figure. Despite not using pedal sustainment to imitate the drone of a *tambūra* or shruti box, this descending figure is reminiscent to another droning instrument, the *swarmandal*[114] which outlines the *rāga* through descent intermittently.

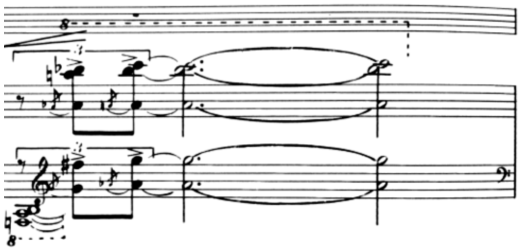

Fig. 4-6

The first instance of an extraneous note being introduced to the *rāga's* motivic development occurs in m.13 with the addition of B^{b}. Introduction of exterior notes such as B^{b} in the upper voice (**Fig. 4-6**) is atypical in traditional *rāga* progression. However, this B^{b} does not mark the point where Charpentier disassociates himself from the foundational melodic material (C,D,E^{b},F$^{\#}$,G,A^{b},B^{bb}), but foreshadows the shift of the *rāga's* root in the *plus vif* section.

The saxophone and piano finally unite in m.14, with the *swarmandal* line followed by the motive seen in **figure 4-6**. This point marks the first impression of rhythmic pulse within an unmetered 19-beat measure.[115] However this quickly dissolves at the end of the measure with the saxophone once again unaccompanied followed by the piano concluding the section with dense tetrachord constructs derived from the *rāga* and each containing concert D.

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[114] A small harp that often provides drone for and performed by vocalist.

[115] This hearkens to the transition between the first and second sections in the Carnatic form *ragam, thanam, pallavi*. A rhythmic pulse is implied, however a rhythmic cycle has not been established.

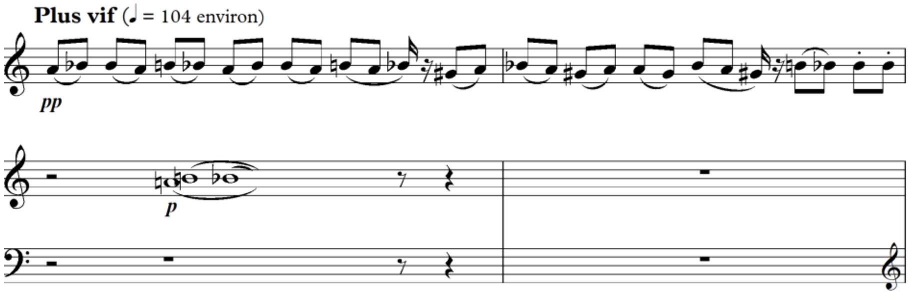

Fig. 4-7

Plus vif continues the pattern of motivic exchange between saxophone and piano until they unite at the end of m.25. Charpentier juxtaposes the notes A^{b} and B^{bb} from the previous section with the addition of B^{b} and B, rhythmically displacing tonal emphasis to convey a shift in pitch center. In m.18 this shift is fully established in the descending piano line (**Fig. 4-8**). Charpentier transposes *sa* (tonic) from concert C to D resulting with the scale (DEFG$^{\#}$AB^{b}C^{b}) and having the same prime form as the foundational scale, [0123679].

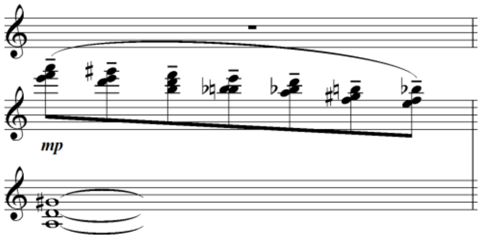

Fig. 4-8

In m.24 the piano takes the eighth-note saxophone line from the opening of *plus vif*. Charpentier superimposes a series of brief melodic figures on the saxophone, with each occurrence in mm. 26, 30, and 32 containing every note of the *rāga* based on *sa* (D).

The third occurrence of single *rāga* note-based melodic construction in m.32, (**Fig. 4-9**), has an accompanimental variant. The trichords in the treble line are based on *sa* (D) *rāga* material over conflicting chordal constructs derived from *sa* (C) in the bass clef.

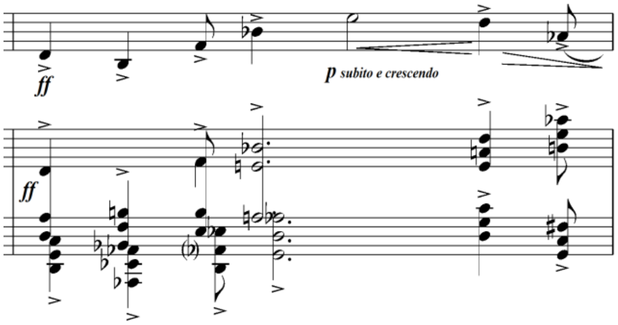

Fig. 4-9

Starting on beat two each chord mirrors one another in prime form with a few exceptions until m.38. Charpentier is not only reminiscing on the initial *rāga* found in the *alap* section but also foreshadowing rhythmic and melodic development to come through dissonant and arrhythmic intensity. This intensity is further established with the melodic *gamaka* figure first used in m.28 returning in mm. 38, 40, 42, 44 with each accompanimental measure having a shorter duration [m.39 – 4.5; m. 41 – 3; m. 43 – 3].

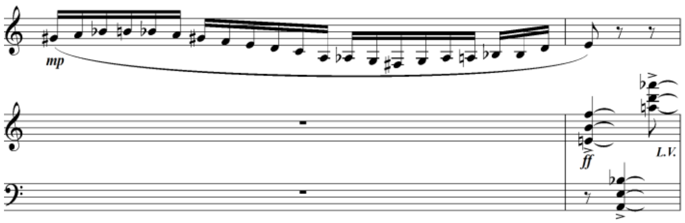

Fig. 4-10

These sixteenth-note runs can be construed as the *gamaka tiripu*, a variation of a single quaver (*tiripa*) in which intervals quickly move round like a whirl.[116] Measure 40

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[116] Alain Daniélou, *The Raga-s of Northern Indian Music*, (New Delhi: Munshiram Manoharlal Pub. 2010), 81.

(**Fig. 4-10**) is the only variant that is not solely constructed from *sa* (D) but in fact a hybridized form in which scalar material from both constructs is used.

Melodic material transitions to a more rhythmically driven center in mm. 45-56. The piano line hearkens to Charpentier's piano etude (**Fig. 4-11**), emulating the *deçi-tâlas* system utilized by his teacher Olivier Messiaen. These patterns often performed on the *mridangam*[117] of South India are not an exact derivative of the system in that Charpentier, like his teacher, manipulated micro-rhythms through various techniques to fit his own compositional language.

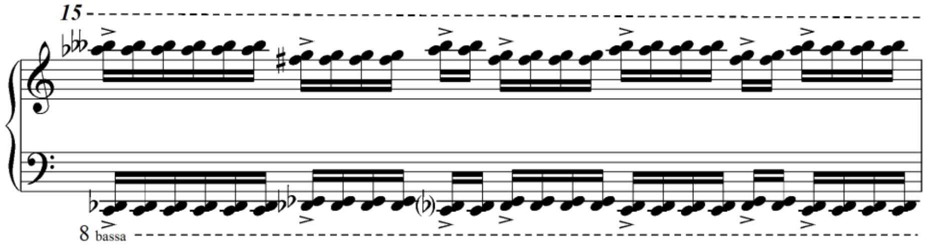

Fig. 4-11

Charpentier did not use the same rhythmic pattern found in his piano etude, however it did influence his conception for *Gavambodi 2* (**Fig. 4-12**). The implication of accents propels the melodic lines interspersed on the saxophone, evoking formal characteristics in Carnatic performance practice. The piano lines *svara* (note) material is based on the scale with the tonic *sa* (C), while the saxophone's melodic figures are based on *sa* (D). The saxophone melodic lines in this section contain at least one occurrence of each note of the *rāga* with the exception of mm.45-46 where A-natural is excluded. The final ornament of the saxophone line in m.46 imitates the singular form of the aforementioned ornament in **figure 4-10**, *tiripa*.

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[117] Barrel-shaped drum with two open ends capable of being tuned. It is the most popular *tala* instrument of South India.

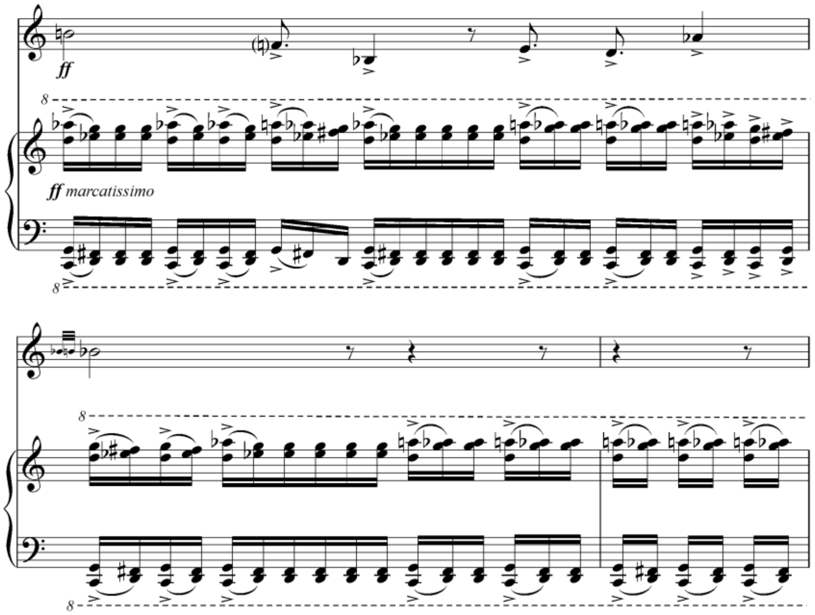

Fig. 4-12

Intensity is generated from conflict between tonal *rāga* constructed centers through rhythmic displacement, and eventually repetition through single note exchange and rhythmic juxtaposition of 3+3+2, 3+2+3, 2+3+3 propelling the music into m. 57 where motivic and trichordal constructs are all based on *sa* (D) excluding returning material in the piano line from the previous section. Starting on the second eighth note of m. 57, Charpentier brings back rhythmic material beginning from beat two of m. 45.

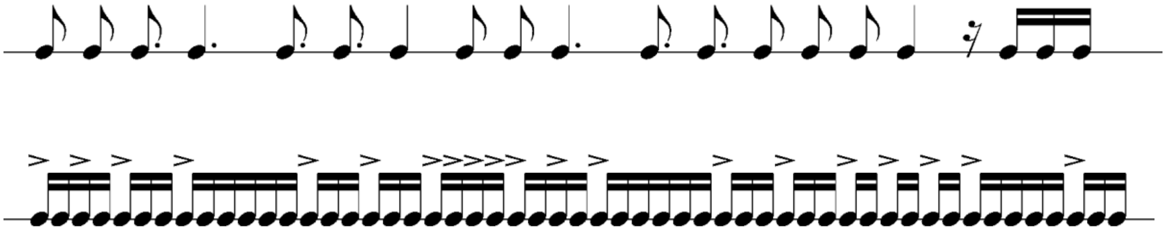

Fig. 4-13

The placement of accents from the prior section fill in rest for the saxophone line in m.57. Charpentier briefly brings back the cycle in m. 59 mirroring the material from m.48 (**Fig. 4-13**).

The descending 32nd-note line returns the melodic material back to the original scale based on *sa* (C) in the *Lent et pesant* section providing a short segue to *Plus lent*. This return to an *alap* section formally does not fit into Carnatic performance practice. Carnatic music tends to progress through melodic and rhythmic intensity to the conclusion of a *rāga* performance as opposed to backing off.

In the *plus lent* section the saxophone and piano exchange dialogue creating an ethereal soundscape until uniting for the final four measures. Each piano section contains the same chords in the same order displaced by octave. The saxophone lines marked *jouer á l'8^{a} aigue, 8^{a} bassa ad libitum* ruminate on compositional techniques found in the *plus vif* section, with each interlude containing each note of the *rāga*.

Hybridization of Traditional Carnatic Practices

Understanding Charpentier's vision of compositional construction is necessary before attempting to use Carnatic performance practices. Western jazz and classical performers often approach period compositions thoughtfully integrating practices relative to the time. The same can be said for compositions based on non-Western materials. Charpentier made an effort to imitate the drone in his piano etude through pedal sustainment so why not *Gavambodi 2*? As a performer, this can be integrated through external means with the addition of a drone producing instrument such as a *tambūra* or *shruti box*. For this composition the *shruti box* fits best since it lacks rhythmic oscillation between pitches like those heard on *tambūra*, thus making segues to new tempos smooth.

Mēla gavambodhi often drones tonic (*sa*) to dominant (*pa*) which would mean droning pitches should be concert pitches C and G respectively. However, this does not take into account the tonal shift of *sa* from concert C to D, atypical in Carnatic performance practice. The drone of C and G does bring about a new level of tension often relieved with Charpentier's overlaying of both tonal centers.[118]

Along with the drone, the performer can also incorporate *gamakas*. *Gamakas* reach fruition in slower sections of a performance, leaving less room for use in faster sections. The opening and closing sections of *Gavambodi* 2 lend to exploring Carnatic ornamentation possibilities.[119] However, the consideration of ornamentation must be approached with tact as to reflect proper practices used for a specific *rāga.* Vocal performances by S. Rajam and Dr. M. Balamuralikrishna of *mēla gavambodi* provide insight on timbral aesthetics, registeral development and Carnatic *gamaka* practices.[120,121]

Before integrating *gamakas,* performers must consider the Carnatic solfège system and registeral development to disseminate ascribed material in its "authentic" form. In the closing *plus lent* section Charpentier enables the performer to adjust registeral placement with *8^a bassa ad libitum*. It is uncommon for Carnatic vocalists to make sporadic leaps, often ornamenting through scalar ascent and decent with occasional leaps past one or two pitches. One possibility of assuaging this issue can be seen in **figure 4-14**. If we are to integrate *gamakas* associated with *mēla gavambodi,* the second (*re*-B) must be altered to *re-komal* (B^b).

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[118] It is possible to drone a fourth *sa* (C) to ma($F^\#$) and create a different effect. However, this would not be standard practice of *mēla gavambodi*.

[119] Since Charpentier incorporated *gamakas* in the opening section, hybridization of traditional Carnatic practices will be applied to the *Plus lent* section.

[120] S. Rajam, "Gavambodhi," *Kanda Ganamutham* Vol.3, Tamil Nadu: Swathi Soft Solutions, 2011.

[121] M. Balamuralikrishna, "Gavambodhi," *Raganga Ravali* Vol.6, Sangeetha: Aditya Music, 1990.

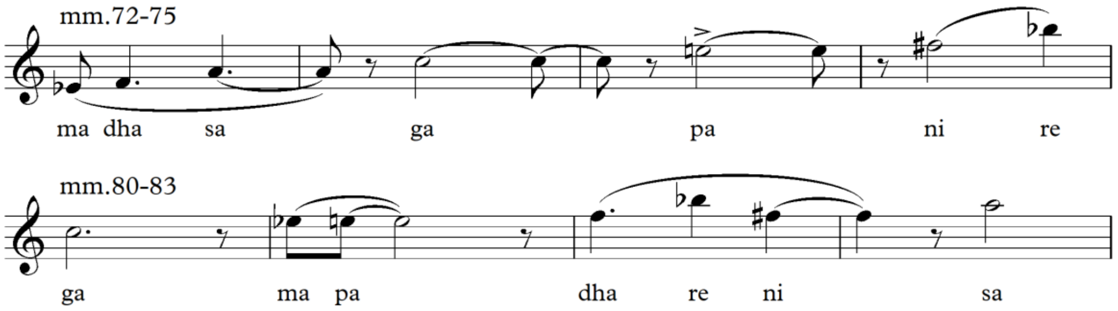
mm.72-75
ma dha sa ga pa ni re
mm.80-83
ga ma pa dha re ni sa

Fig. 4-14

Two specific *gamakas* that can be utilized by the performer are *jaaru*[122] (glide reminiscent to portamento) and *kampita*[123] (oscillation). The concert pitches E^b, F#, and B^{bb} receive the most oscillation through the practice *kampita*. *Kampita* is a technique that defines the Carnatic soundscape through which multiple micro-undulation possibilities are contained within a single form. Concert G is often approached through *jaaru* (slide) or a grace note from either F# or A^b with a subtle *kampita* upon arrival. *Jaaru* are also incorporated when leaving concert C.

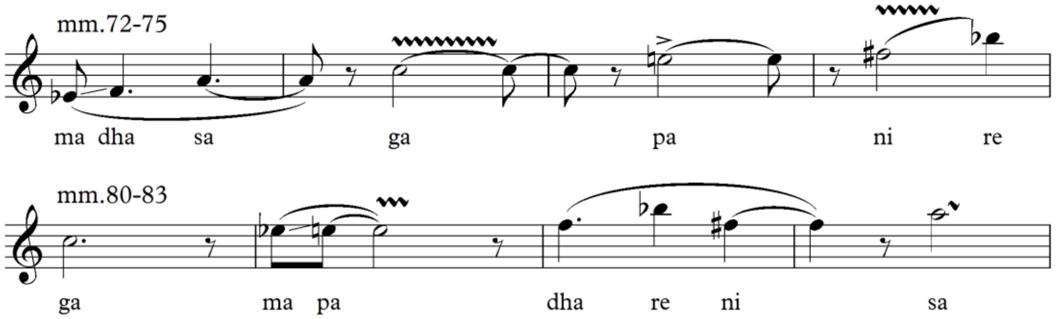
mm.72-75
ma dha sa ga pa ni re
mm.80-83
ga ma pa dha re ni sa

Fig. 4-15

Figure 4-15 is an example of how *gamakas* can be used with *jaaru* composed through portamento and *kampita* through vibrato.

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[122] Carnatic equivalent to *meendh*.
[123] oscillation of a pitch aurally similar to wide vibrato but never aurally touching adjacent notes.

The *gamakas* incorporated in **figure 4-15** are based on surface level observations. Upon listening to vocal performances, such as S.Rajam and M.Balamuralikrishna, subtle ornamentational variables may go unnoticed and perceived as continuous vibrato flowing between pitches of a given *rāga*. Within this sonic current, vocalists are performing micro ornaments.[124] In **figure 4-16** a few subtle *gamakas* used in *mēla gavambodi* are included. These can be used in conjunction with concepts discussed in **figure 4-15**, however *gamakas* should not be overused and it is their subtlety that evokes *rasa* aesthetics.

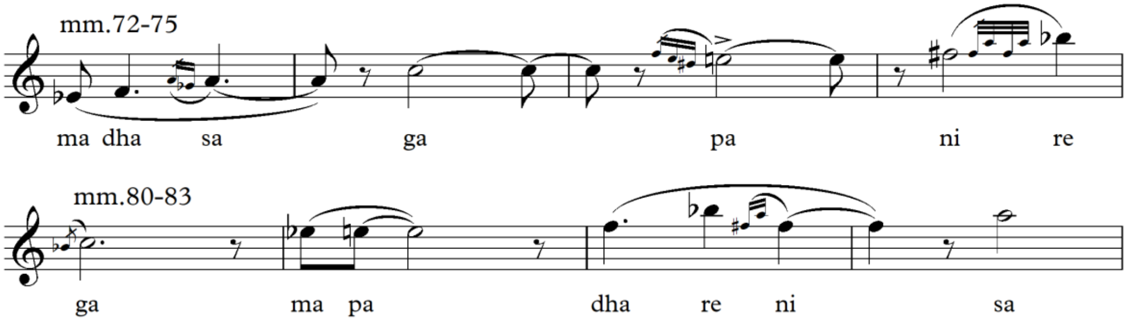

Fig. 4-16

One final option for the performer to be true to the *rāga's* origins is to fix the mistake of *rāga* misspelling throughout the entire work. Charpentier used a major second thus making the piece based on another *rāga*, despite borrowing material from his piano etude constructed from the correct *rāga* spelling. In the opening and closing sections of the composition the performers can change concert D to D^b and in the middle section, excluding the rhythmic piano line beginning in m. 47, concert E to E^b.

Gavambodi 2 by Jacques Charpentier opens the door to hybridized possibilities through integration of both Western and Carnatic techniques. The pitches used do not necessarily have to be changed, however it is a misnomer to label it *Gavambodi* 2 as the pitches are not correct. Saxophonists can reflect ornamentational nuances associated with *mēla gavambodi* to reflect its proper roots of origin. A new soundscape emerges through incorporation of techniques respectful to its influences along with integration of the drone that accompanies all Indian music.

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[124] In both the S.Rajam and M. Balamuralikrishna recordings aural focus on the Carnatic violin's reiteration of vocal *gamakas* in the background.

CHAPTER 5

Shruut

The music of Dutch composer and saxophonist Jorrit Dijkstra (b.1966) is multi-layered, crossing genres and cultural boundaries. Dijkstra’s composition *Shruut* for saxophone quartet and electronic shruti box generates a multifaceted soundscape influenced by Bollywood, free jazz, and minimalism. Commissioned in 2008 by the Amstel Saxophone Quartet and recorded on their album “Amstel Raga,” *Shruut* offers something new within the confines of saxophone quartet repertoire. The work was inspired by the mood and music of Indian composer and filmmaker Satyajit Ray with its main melody influenced by a melodic fragment from the film *Charulata* (The Lonely Wife). Understanding components that define Satyajit Ray as a director and the levels of character development within his film scores through compositional synthesis enable performers of *Shruut* to disseminate a hybridized pedagogical approach sincere to its origins. This chapter will briefly elucidate the complexities that Ray’s character development entails as well as identify the finer points of *gamaka* (ornamentation) practice accompanied with the superimposition of the 16-beat *tāla* cycle *teental*. Several parallels between the plot line of *Charulata* and the form of Dijkstra’s piece will be drawn over the course of examining *Shruut*.

> “Dijkstra hears the stylistic diversity within the networks that link his cohorts, and gives it space not to just breathe, but also occasionally to snort, howl and laugh riotously. Still, the music has a discernable Dutch tinge, which is alternately audacious and austere.”[125]

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[125] Bill Shoemaker, “The Flatlands Collective,” *Downbeat* (August 2007).

Dijkstra spent his formative years studying composition and improvisation with Misha Mengelberg[126], Steve Coleman[127], Steve Lacy[128], Bob Brookmeyer[129] and Lee Hyla[130]. His style ventured beyond jazz and free improvisation into world music while an active performer in Amsterdam's diverse music scene before moving to the United States in 2002 to serve as Associate Professor at Berklee College of Music and as faculty member at the New England Conservatory in Boston.[131] Dijkstra's branching beyond the periphery of Western aesthetics played a pivotal role in his composition *Shruut*. *Shruut* is meant to be neither Indian nor Western, but an amalgamation of soundscapes.

> "I did study Indian music for a semester at the conservatory, but I am not using the complicated pitch and rhythm materials of those traditions. I did listen to and was very inspired by the film music of Satyajit Ray, a filmmaker and composer. So it is more Bollywood influenced than any of the traditional styles. It also has a hint of minimal music."[132]

Though Dijkstra simply borrowed a motive and shaped it to fit his compositional style, performers can utilize it as a stepping stone into a practice that dominates the Indian soundscape, Bollywood. Bollywood is a melting pot of traditions where universality is a means to display an artistic vision. Satyajit Ray was a pioneer of this soundscape, and understanding his aesthetics of character and film score development offers saxophonists a different take on *Shruut*.

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[126] (b.1935) is a Dutch jazz pianist and composer whose stylistic influence is drawn from Thelonious Monk, Duke Ellington, and John Cage.

[127] (b.1956) African-American saxophonist, composer, and band leader who has heavily influenced contemporary jazz.

[128] (1934-2004) is a jazz soprano saxophonist and composer who worked extensively in dixieland, experimental jazz, and free improvisation.

[129] (1929-2011) is an American jazz valve trombonist, pianist, arranger and composer who is most noted for his work as a member of Gerry Mulligan's quartet.

[130] (1952-2014) is a composer and pianist whose works draw influence from new music, rock, and free improvisation.

[131] Jorrit Dijkstra, "biography," http://www.jorritdijkstra.com/bio.html (accessed January 12, 2016).

[132] Jorrit Dijkstra, e-mail correspondence with author, December, 2013.

Satyajit Ray

The motive from which Dijkstra drew his influence when composing *Shruut* serves as a gateway to cultural performance practices and social dynamics beyond our Western perspective. The graphic artist, musician, writer, director, and entrepreneur Satyajit Ray (1921-1992) redefined the art of Bollywood filmmaking. Born in Calcutta into a Bengali family prominent in the world of arts and literature, Ray emerged as a commercial artist during his early career. His visit to London in 1948 would prove pivotal, luring Ray into independent filmmaking after meeting the French filmmaker Jean Renoir[133]. The following year Ray assisted Renoir when he visited Calcutta in search of locations and actors for *The River*. As an admirer of Renoir's attitudes to both life and film making, Ray was compelled to direct his first movie after discussing ideas with his mentor.[134] With no experience in filmmaking, along with the group of actors and camera men that accompanied him, Ray released his first film *Panthar Panchali* (Song of the Road) in 1955. Upon its release it won international awards and propelled Ray into the Bollywood film industry.

During his early film making career Ray worked with some of the greatest maestros of Indian classical music including Ravi Shankar[135], Ustad Vilyat Khan[136] and

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[133] (1894-1979) French filmmaker, producer, actor, and author. Renoir's films reflect social and intellectual trends of the historical period. As an experimentalist and visionary his output encompassed several shifts in the filming industry including the Silent Era, introduction of sound, Film Noir, transition to Technicolor etc.

[134] Andrew Robinson, *Satyajit Ray: The Inner Eye* (Berkeley and Los Angeles: University of California Press, 1989), 67.

[135] Ravi Shankar - for the *Apu Trilogy* and *Parash Pathar* (1958)

[136] Ustad Vilyat Khan - for *Jalsaghar* (1958)

Ali Akbar Khan[137]. However he shifted away from this trend and began composing the music for his films in the 1960s stating that he had “too many musical ideas of his own, and composers, understandably enough, resent being guided too much.”[138] Scores were constructed as early as the script stage and meticulously composed in either Indian or Western notation depending on the musicians. To Ray, the role of music was to make things simpler for the audience.

> “This discovery that although you have roots here – in Bengal, in India – you are at the same time part of a large plan, a universal pattern. The uniqueness and this universality and the co-existence of the two, is what mainly I try to convey through my films.”[139]

Scores for each film share the same aesthetic where “one should not feel like thinking about whether certain themes are Indian or Western, they’re just purely music.”[140] Ray’s films rarely contain heroes or villains. To him, villains equivocated central problems in history. So, in contrast, he explored the complex of devices by which establishments have legitimized and reinforced their status, in ways that have secured consensus among the ruled as well as ruling and that have often eluded the consciousness of both. Characters’ “social identities” beyond human complexity are developed within a certain moment in a certain place through a particular web of social relationships. These factors confined in Bengalize settings are merely a metaphor that expounds upon macrocosmic human conditions that are relatable beyond cultural boundaries.

Ray favored employing elements of well-known *rāgas*, particularly morning and evening *rāgas*, along with seasonal ones. To him they were ‘matchless’ at conjuring moods both natural and human.[141] Throughout his films Ray incorporated *rāgas* but not in the traditional sense, often using them in an unorthodox manner shifting from one *rāga* to another or introducing a note foreign to the *rāga* as to reflect the atmosphere on screen. The possibilities of fusing Indian and Western instrumentation and traditional practices did not take prestige in Ray's compositional pallet until the film *Charulata* (1964). The saturation of *shrutis* inherent in indigenous instruments was inappropriate to convey certain moods in Ray's films. Therefore he imported Western wind and string instruments that 'lacked' the ability to produce these affects to develop his characters through timbral color.

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[137] Ali Akbar Khan- for *Devi* (1960).

[138] Sunil Singh, “Music of Satyajit Ray,” www.satyajitray.org (accessed January 12, 2016).

[139] Andrew Robinson, *Satyajit Ray: The Inner Eye* (Berkeley and Los Angeles: University of California Press, 1989), 315.

[140] Ibid, 316.

Charulata (the Lonely Wife) is based on the novella *Nástanirh* (The Broken Nest) by Rabindranath Tagore. Set in late 19th-century Calcutta, *Charulata* is a story of unrequited love that revolves around Charu. Charu is the lonely wife of a newspaper editor, Bhupati, but she falls in love with her visiting cousin-in-law, Amal. Ray conveys the innermost feelings and thoughts of his characters with minimal dialog and an understated background score. During the course of the film there is an interplay of sophistication and simplicity accentuated by brief musical interjections to reflect the thoughts of each character.

The musical interludes "Charu's theme" and "Bhupati's realization" contain the motive from which Dijkstra drew his influence, with the latter highly ornamented and fleeting. "Charu's theme" (**Fig. 5-1**) only lasts for a brief duration on the *bansuri*[142] accompanied by the drone of sympathetic strings on the *sitar*[143].

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[141] Ibid, 317.

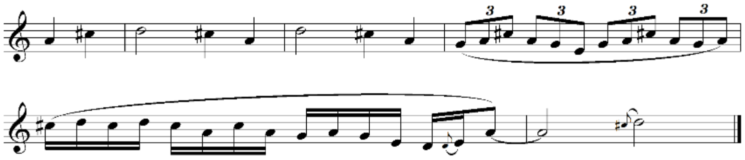

Fig. 5-1 "Charu's Theme" from *Charulata*

Dijkstra incorporates several elements that are affiliated with Indian classical pedagogy before the first arrival of his variation of the motive in mm.73-77. Understanding techniques used and highlighting their non-Western components facilitates classical saxophonists' execution of a hybridized approach in *Shruut*.

Drone, *Gamakas* and Form

In order to bridge traditions *Shruut* is accompanied by an electronic shruti box, which can be substituted with an acoustic *tambūra*[144] or *shruti box* performer.[145] *Shruut* loosely follows formal concepts of Indian classical music. Dijkstra indicates that the opening through rehearsal B is reminiscent of the *alap*, an unmetered, unaccompanied, improvisatory section that initiates and develops the *rāga*. Before the performers begin, they must establish the drone of the *shruti box*. In Indian musical theory it is said that there are two kinds of sound: the vibration of ether and the vibration of air. The vibration of ether cannot be perceived in the physical sense, but is the manifestation of all tonal essence, similar to the Pythagorean concept "music of the spheres." This sound is not created by physical means, and is therefore defined as *anāhata* or "unstruck." The vibration of air is a temporary audible image of the ether vibration, produced by a shock and is therefore called *āhata* or "struck."[146] The majority of Indian classical music is based on the establishment of relations between a permanent fixed drone, usually tonic or tonic/dominant, and successive notes performed above it. Indian music is built on the independent relationship of each note to the tonic, where the tonic determines the meaning of the given sound. The drone is not merely intended to keep the musician on pitch; it is also the key to all modal expression. In order to experience the whole of sound, one must embrace the connection and fluidity of the relationship between drone and melody. They are separate, but also as one, where sounds emerge and subside from the primordial "Om" sound, in *Shruut* concert D^b and A^b. The *svara* or notes performed are not only definite pitches but also the expression of sound.

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[142] The bansuri is a South Asian traverse flute constructed out of bamboo. It is often associated with the love story between Krishna and Radha.

[143] North Indian fretted lute with a gourd resonator, six to seven primary strings and a 12 to 15 sympathetic strings.

[144] An unfretted long lute that provides the drone.

[145] Email correspondence December 2013

Each note of the *rāga* can be considered a world in and of itself consisting of microtonal intervals or *shrutis*. In this microtonal world there are many sounds of "unperceivable variability" that escape conscious notice. These sounds create a richness and spontaneity that lend to the overall abandonment and enlightenment of one's self within the musical current. In the work *Shruut* bends (*meendh*) between pitches, and/or delicate oscillations of a single tone (*andolan*) evoke these micro-tonal features and should be incorporated sparingly as each saxophone emerges from the drone before rehearsal A (**Fig. 5-2**).

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[146] Alain Daniélou, *The Rāga-s of Northern Indian Music* (New Delhi, India: Munshiram Manoharlal Pub, 2010), 21.

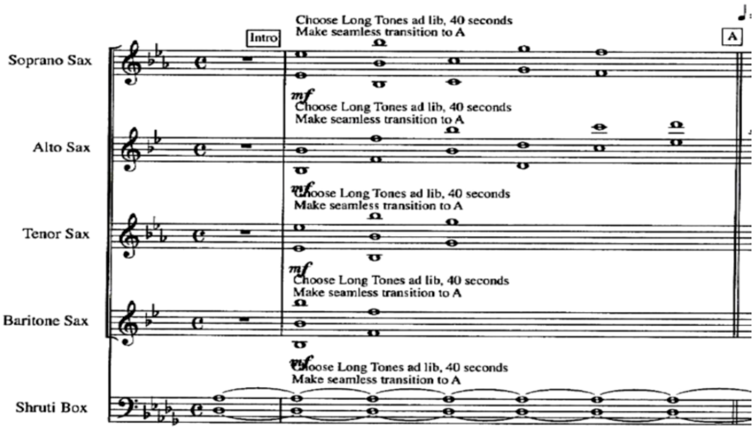
Intro
A
Soprano Sax
Alto Sax
Tenor Sax
Baritone Sax
Shruti Box
Choose Long Tones ad lib, 40 seconds
Make seamless transition to A
mf

Fig. 5-2

Rather than randomly interjecting notes from different registers, performers should gradually emerge from the low register and ascend over the course of forty seconds, never moving in unison. Hindustani and Carnatic musicians seldom move forward registerally until a *rāga* is properly developed based on *rasa* aesthetics. Dijkstra encourages performers to sparingly interject flutter tongue or subtle growls integrating free jazz techniques within an Indian influenced soundscape. This freedom of timbral interpolation facilitates the possibility for performers to use techniques that hearken to Indian aesthetics. Occasionally a performer should delicately incorporate an *andolan* (oscillation of a single tone), but never together and only on concert D^b. From beginning through rehearsal B, additions of flutter tongue and ornaments (*gamakas*) specifically gliding undulations are acceptable with the mindset of creating a sonorous atmosphere through frugal use. Dijkstra integrates two *gamakas* throughout *Shruut*: grace notes (*kampita*) and bends (*meendh*) (**Fig. 5-3**). *Kampita* must be performed in such a way that the texture remains subtle along with *meendh* which are performed slowly and unmetered in order to properly stress the *shruti* within the context of foundational tones (half steps/ whole steps).

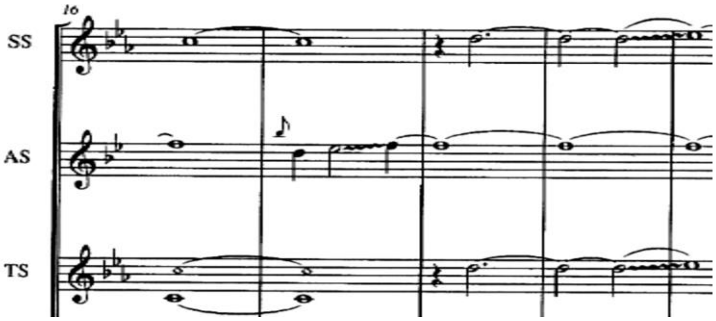

Fig. 5-3

This also applies to overtones performed in *Shruut.* When performing overtones it's not necessary to precisely hit the desired pitch (though intonation does matter). However, it is important to hear the color shift of notes contained within the upper and lower partial. The number of *shrutis* can vary anywhere from 22 to 66, but performers do not need to concern themselves with precision of micro-tonality in that interpretations vary by region and the moment in which they are performed.

The saxophone quartet fades back into the omnipresent drone at the conclusion of the *alap* before rehearsal B. Indian classical music typically follows a form where rhythmic aspects dictate its position in development. Often there is a *jor*[147] phase where rhythm is introduced but not in a fixed pattern to hint at the eventual rhythmic cycle (*tāla*). In *Shruut* this phase is skipped altogether and rhythm is firmly established at rehearsal B.

Rhythm and the Superimposition of Teental

> Tempos, like scales, are connected with moods: "In a laughing or a loving mood use a moderate tempo; in disgust and fear, a slow one; in the heroic mood, in wrath and wonder, a fast tempo." (*Vishnu-dharmottara,*3, 18.)[148]

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[147] Second movement of the alap portion that is characterized by unmetered rhythm.

[148] Alain Daniélou, *The Rāga-s of Northern Indian Music* (New Delhi, India: Munshiram Manoharlal Pub, 2010), 66.

Rehearsal B can be interpreted formally as the *jhālā* section in the context of Indian classical traditions. In Hindustani music there are three macro denotations of tempo (*laya*): *vilambit* (slow), quarter = 60; *madhya* (Medium), quarter = 120; and *drut* (fast), quarter = 240. This section is *madhya*, with the potential to have the 16-beat *tāla* cycle *teental* superimposed on it. The *jhālā* section in effect has two pulse levels. The macro pulse alternates every four measures with the tenor sax serving as the foundation paired with either the alto or baritone saxophones. The secondary pulse, performed by soprano accompanied by either alto or baritone, is slower having the impression of being unmetered.

Teental ("3 claps") is the most common of all *tāls* (rhythmic cycles) in Hindustani music (**Fig. 5-4**). Different groupings of beats in the subdivisions of a *tāl* distinguish different *tāls* having the same number of beats. "3 claps" designates the points of emphasis in the macro-rhythmic system of *teental* (4+4+4+4). Each macro-rhythm in a *tāla* cycle contains corresponding vocal patterns (*ṭhekās*) that are thought of and memorized in drum syllables (*bols*).

Teental: 16 beats (4+4+4+4)

Tal markings	**+**				**2**				**o**				**3**			
Theka (bols)	dha	dhin	dhin	dha	dha	dhin	dhin	dha	dha	tin	tin	ta	ta	dhin	dhin	dha
beats	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Fig. 5-4

The alternating sixteenth-note line between baritone and alto along with tenor line can imply the superimposed cycle by mimicking *bols* through inflections with air trajectory and articulations at the beginning of each measure. This requires an understanding of *bol* timbres produced on the *tabla*.

Tabla consist of two drums: a small wooden or clay drum (*dayan*) performed with the right hand, and a large metal drum (*bayan*) performed with the left hand. Single strokes of one drum or combinations of both facilitate multiple *bol* sounds. *Teentals ṭhekā* consist of two single stroke *bols, ta* and *tin*, and two combination stroke *bols*, *dha* (*ga*+*ta*) and *dhin* (*ga*+*tin*). *Tin* is a soft, resonant stroke of the *dayan* produced by a light ricochet of the pinky and ring fingers. *Ta* is a rim stroke on the *dayan* produced by a forceful hit with the index finger. *Ga* is a very resonant open stroke produced by resting the wrist on the head of the *bayan* and rebounding of the middle and ring fingers.[149][150]

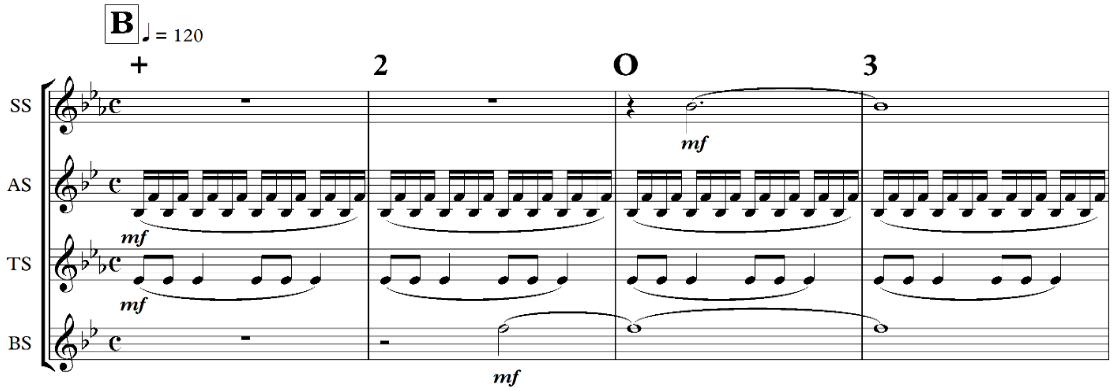

Fig. 5-5

With *teental* as the foundation (**Fig. 5-5**) repeated every four measures, other techniques can be integrated to evoke Indian aesthetics without completely changing Dijkstra's compositional vision. Rehearsal B to C is a quasi-minimalistic transitory section that firmly establishes a rhythmic drive that characterizes the remainder of the composition. As opposed to the *alap* section, with a melodically-developed atmosphere, performers are generating a soundscape dominated by macro-rhythmic stability characterized by micro-rhythmic variations. A defining feature of Indian classical music is a performer's ability to create the temporary illusion that they have freed themselves from the constrictions of *tāl*. This dual perception is achieved through juxtaposition of rhythmic tension and relaxation.

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[149] David Courtney, *Learning the Tabla* (Pacific, MO: Mel Bay Pub., 2001), 19-24.
[150] Martin Clayton, *Time in Indian Music: Rhythm, Metre, and Form in North Indian Rāg Performance* (New York: Oxford University Press, 2008), 44.

The first break in the initial macro-rhythm (tenor sax) occurs in mm. 55-56 with the soprano saxophone marking the first unison melodic motion in the work. This half-note shift from concert F to G^b briefly foreshadows the melody from which Dijkstra derived his influence.

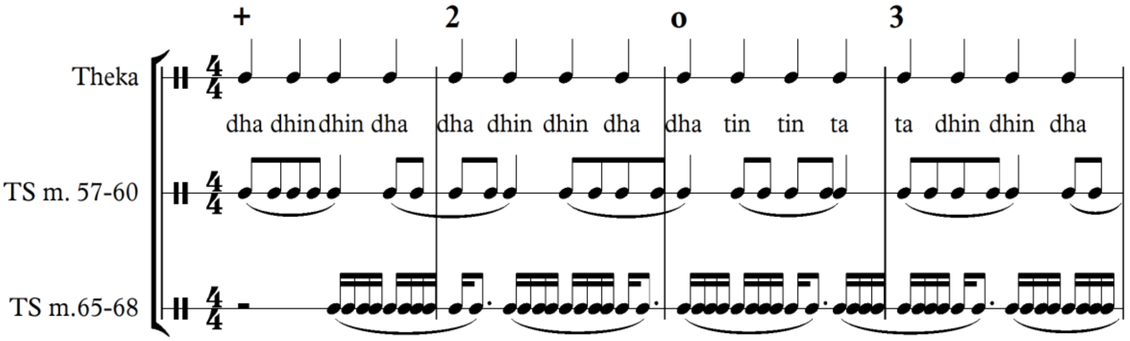

Fig. 5-6

Despite a *tāl* cycle having a set structure of *mātrās* (beats), it is common for a cycle to be displaced through groupings. The tenor saxophone line in mm. 57-62 and 65-72 (**Fig. 5-6**) is marked by three beat sub-groupings that cycle every twelve *mātrās*. Dijkstra's suggestion of random accents in mm. 65-72 not only hearkens to free jazz influence, but through an Indian perspective enables the tenor saxophonist to serve a dual purpose of timbrally implying *tāl* variations within the baritone saxophone sixteenth-note line.

The final fast movement of an instrumental rendering of a *rāga* is called the *jhālā*. The rhythmic and melodic layers Dijkstra constructs at rehearsal C can be understood as progression of the *jhālā* section, marked by the virtuosity it encompasses through the unison of melody and rhythmic complexity. *Sarod* and *sitar* performers often play a slow melody in their left hand while the right hand creates complex rhythmic patterns.[151] These rapid repeated patterns or *chikārī* strokes are performed on the high drone strings on an instrument creating the illusion of tempo acceleration through increased timbrally repetitive activity.[152] In essence this affect is displaced to saxophone quartet where the baritone saxophone serves as the *chikārī* stroke, tenor saxophone as the *tabla* cyclic variant, and soprano saxophone as the drone (**Fig. 5-7**). Each line serves to accentuate the melody in the alto saxophone, which is foreshadowing the *bansuri* motive from which Dijkstra drew his influence.

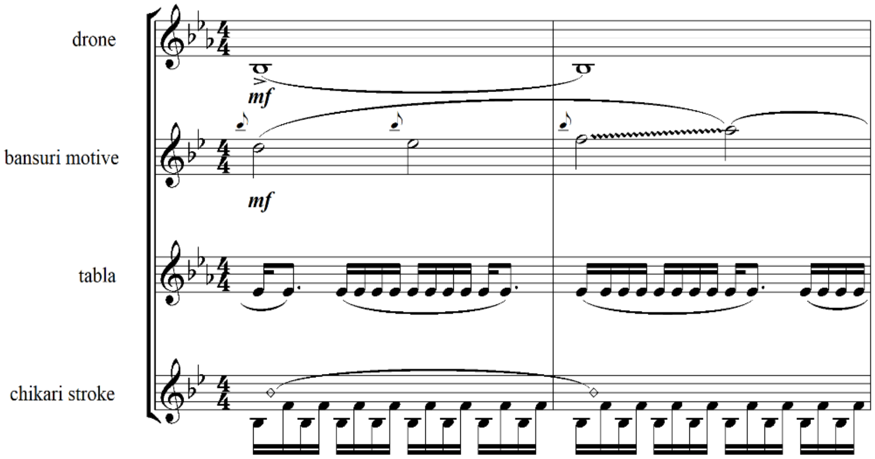

Fig. 5-7

Charulata Motive and Film/*Rāga* Implications

As described earlier in the chapter, when composing *Shruut*, Dijkstra borrowed a melodic idea from Satyajit Ray's film *Charulata,* (**Fig. 5-1**). This melodic figure doesn't reach fruition until mm. 73-77 in the soprano and alto saxophone (**Fig. 5-8**). The majority of the line is identical in melodic construct, however its original form is relegated to a solo *bansuri* **(See Fig. 5-1)**.

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[151] Joep Bor, *The Raga Guide: A Survey of 74 Hindustani Ragas* (Monmouth: Wyastone Estate Ltd., 2002), 6.
[152] Martin Clayton, *Time in Indian Music: Rhythm, Metre, and Form in North Indian Rāg Performance* (New York: Oxford University Press, 2008), 102.

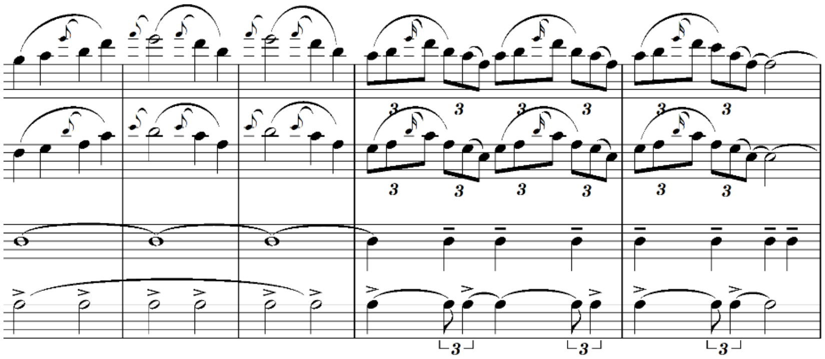

Fig. 5-8

The original *Charulata* motive is a unique example of Ray's shift to a hybridized compositional approach in which both Western and Indian traditions overlap in order to represent the layers of psychological discourse on screen. Ray's assimilation of musical traditions often clouted points of origin where his own timbral aesthetics took precedence. Understanding Ray's compositional shift is necessary if one were to attempt to ingrate *gamakas* "sincere" to its *rāga* or *rāgas* of origin.

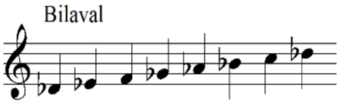

Fig. 5-9

The *Charulata* motive, originally in D major but shifted down a half-step to D^b major in *Shruut*, is a derivative from the *thāt* (framework) *Bilaval* (**Fig.5-9**), or a Western major scale. Since *ṭhāṭ-s* do not have any emotional (*rasa*) qualities, Ray may have drawn influence from any number of *rāgas* associated with the parent *thāt*. The present day *thāt* system, accredited to Vishnu Narayan Bhatkhande (1860-1936), is ambiguous. It is often hard to group *rāgas* with both natural and either *tivra* (sharp) or *komal* (flat) varieties of *re* (2nd), *ga* (3rd), *ma* (4th), *dha* (6th), and *ni* (7th).[153] Therefore based on melodic material from *Charulata* and *Shruut* one can extrapolate a *rāga* to serve as a medium for *gamaka* and *rasa* discernment.

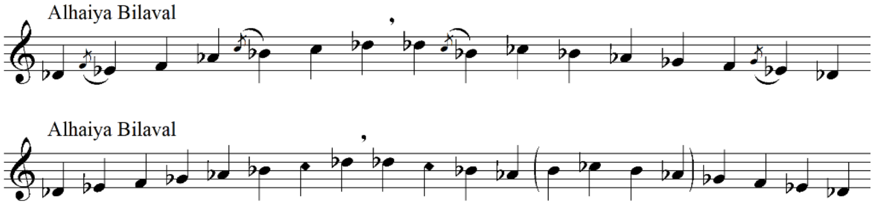

Fig. 5-10

Rāga alhaiya bilaval (**Fig. 5-10**) is the most commonly performed derivative of the bilaval group containing several regional interpretations.[154] Emphasis of the upper tetrachord, a characteristic feature of *alhaiya bilaval*, is the prominent feature of the *Charulata* motive.

Contextualization of the scene in which the motive first occurs relates to several qualities found in the implied *rāga*. Midway through the film a new phase concerning the deepening relationship between Amal (Brother-in-law) and Charulata (Bhupati's wife) develops. Amal has been tasked by Bhupati to relieve his wife's boredom by encouraging her literary interests. The scene in which they go out to the estate garden propels internal angst through relinquished kismet. While enveloped in nature, Charulata spends her time joyously swinging and discussing poetry with Amal sitting nearby contemplating a verse worthy of his ambitions. As she sees a mother with her child in the window, Charu is reminded of deficiencies in her life. She then turns to gaze upon Amal denoting the first wrenching instance that she cares for him. Charu encourages Amal not to publish the verses he composes in her company, but only wants those words to belong to just the two of them.

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[153] Joep Bor, *The Raga Guide: A Survey of 74 Hindustani Ragas*, 3.

[154] The two examples of *alhaiya bilaval* in figure 5-10 display how regional interpretations vary in *gamaka* implementation.

This scene is indicative of the ragamala[155] painting associated with *alhaiya bilaval* which portrays a woman looking in a mirror adorning herself while anxiously waiting for her lover. In the case of *Charulata* this love is forbidden. *Rāga alhaiya bilaval* has several different interpretations, however some consistencies can be surmised. It is to be performed in the morning[156] with primary pitches *ga* (3rd), *ni* (7th) and slightly less *sa* (tonic) and *pa* (5th) often oscillated (achieved through wide vibrato) or actuated by grace note (*kampita*). The overall expression should be pleasing and lovely with minor third relationships having a melancholy expression.

Complementary to the tonic/dominant drone in *Shruut*, the drone for *rāga alhaiya bilaval* is a fifth relationship from *pa* (5th) to *ri* (2nd). The drone in *Charulata*, performed on the *sitar* alternating *sa* (tonic) and *ni* (7th), in essence aurally shifts the tonic to what Westerners refer as the locrian mode. However in all Indian classical music there is no diminished fifth but only absence of fifth or interplay between natural and augmented forth in order to generate a specific *rasa*.

Ray's hybridization of techniques allowed him to quickly depart from tonal centers (**Fig. 5-11**). This is similar to how Dijkstra gradually departs from the *Charulata* motive before rehearsal E through increasing rhythmic activity and dissimilating the original melodic material with the introduction of concert E and B.

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[155] Medieval miniature paintings depicting rāgas according to verbal descriptions

[156] some interpretations stating early (6 a.m.-9 a.m.) others stating late morning (9 a.m.-12 p.m.)

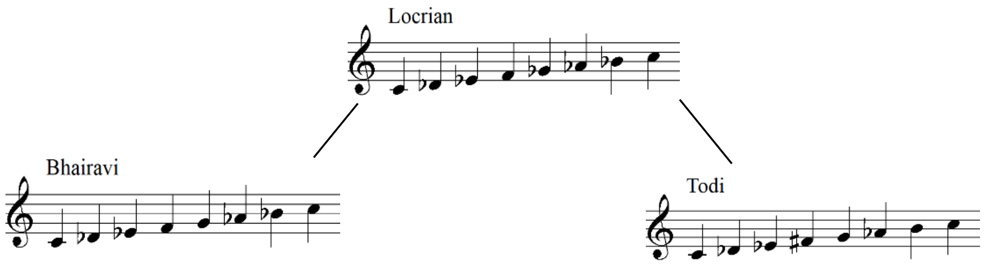

Fig. 5-11

Rehearsal E serves as a segue to the free-jazz section with the tenor and soprano line briefly reminiscing on the triplet portion of the *Charulata* motive. Emphasis of timbral relationships and rhythm take precedence from rehearsals E-G with each section sharply halted by the primordial subdued sound of the drone. Superimposition of *teental* through aforementioned articulations retains an Indian aesthetic in this section hybridized with free-jazz timbres. The ascension of dissonant conflict in *Shruut* relates to development in *Charulata.*

Bhupati's newspaper goes bankrupt after a trusted employee mismanages funds and steals. Stating afterwards in Amal's presence, "If a man I put such trust in shows not the slightest respect…then what have we got?   How do we go on living? …Is there honesty? Is it all just sham and lies?"[157]Amal silently takes this to heart and realizes he had undermined Bhupati's trust by unintentionally destabilizing Bhupati's marriage with Charulata. Amal hastily packs his bags and departs only leaving a note.

Rehearsal H decelerates the discordance of the free jazz section recalling the motive through juxtaposition among different members of the quartet. Slowing the last bend at the end of *Shruut* in the upper three voices of m.173 can serve a dual purpose not only bringing out the *shruti* but hearkening to the conclusion of the film. Charulata, crushed by Amal's departure, makes the concerted effort to conceal her disappointment. Bhupati eventually finds out about his wife's disenchantment and finally realizes he has not only lost his newspaper but also his wife. In the last frame of the film Bhupati and Charulata reach out to one another but never quite touch. This visual statement is a metaphor for the gap that will always remain between husband and wife.

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[157] Andrew Robinson, *Satyajit Ray: The Inner Eye* (Berkeley and Los Angeles: University of California Press, 1989), 168.

Shruut for saxophone quartet and electronic shruti box is enveloped in Dijkstra's compositional hybridity. As an amalgamation of Bollywood and free-jazz techniques, *Shruut* does not require the implementation of *gamakas* and the superimposition of *teental*. However, analogous with the compositions discussed in Chapter Three and Chapter Four, saxophonists have the potential to approach this work from a different vantage point.

CHAPTER 6

Conclusion

A multi-dimensional approach towards compositions influenced by non-Western practices provides uninitiated musicians new musical perspectives. Though our unwavering trend of retaining Western classical practices is important, performers must simultaneously take into account various aspects of the universal soundscape in order to get the global meaning of a work. The three compositions discussed each provide insight on an aspect that characterizes the Indian soundscape. My intention was not to deconstruct each composer's initial vision, but attempt to assuage the distinct gap between Western and Indian traditions. Highlighting the aspects that make Hindustani and Carnatic music unique further validates compositional hybridity by the performer's incorporation of *shruti*, *gamakas*, and timbral aesthetics.

Driven from the Orientalist trend from the early 20th century, the West, though intrigued by India and its music, had trouble rationalizing it within our Western system. But this was to be expected, particularly due to the fallaciousness of Orientalism. Ideas were used contextually, but without verified research and any semblance to the origin. However, the main reason for the confusion is because Indian music represents the antithesis to our own.

There are many distinct differences between Western classical music and Indian music. The tradition by which students learn their art is as different as speaking and writing. India's music exists within its people and, with only a rudimentary form of transcription, it was rarely written down. The music heard in modern-day India is the same music the ancient Aryans heard while codifying their Vedas. The Rig Veda, a sacred collection of hymns and chants written circa 1700-1100 B.C.E., contains the words of the ancient Brahman chants, but the music exists only in the minds of priests, and their apprentices. Music is and has always been orally transmitted and preserved in India. The *guru-shisya parampara*, or master-student tradition, is essential to India's music in order to ensure faithful reproduction of ancient sounds.

There exists a philosophical debate within Indian music. If music is considered a medium that exists within the vibration of all things, and can be heard by human ears through performing ancient music handed down through the *guru-shisya parampara*, why is originality discouraged? In fact, this is a popular misconception of the Indian tradition of music. While musicians must perform within strict melodic and rhythmic parameters memorized in rote instruction, there are infinite collections of *rāgas*, rhythmic cycles that range from 3 to 102 beats, and an innumerable combination of each. Every performance is new, rising from the vibrations within the musician's heart and ear. An Indian performer is an adept improviser.

In the West a similar conundrum exists in music. Music has been notated since the *Musica Enchiriadas* in the 9th century. Since a composer has the ability to specify how he wants his work to be heard, via notation and musical symbols, should the performer stay rigidly faithful to the score, or apply creative license in order to transform the music from ink and paper to something more personally aesthetically pleasing? A traditionalist would only allow a composition by Bach to be performed under the same circumstances that Bach heard it, with strict terrace dynamics on period instruments with specific ornamentation principles. Though the composer is long gone, some Western musicians remain faithful to an explicit interpretation of his music, citing that a work is only adequately "Bach-ed" when certain specifications are met.

On the one hand, historical accuracy and preservation is essential for progress, and the art of music is not exempt from this rule. Nonetheless, creative exploration and "rule-breaking" are also necessary to further music. In a way, each of the preceding arguments are one in the same – should a musician regurgitate a correct representation of their art (from either oral or written tradition) or are these particulars only meant as a creative springboard for further expansion of such a majestic art? As many modern artists have discovered, tradition is the greatest instructor, but music lies between the notes inked on a page, within the semi-tones of a *rāga*, and deeply engrained in the primary *rasa* of a piece.

> Historical and systematic approaches can never exist separately. A purely historical approach in musicology can only talk about musicians, audiences, teachers, social settings and historical events, but never about the music itself, because talking about music requires talking about the workings of music, about the formal aspect of music. On the other hand there is no systematic approach to music without knowing its historical dimension. The form and structure of music are not a-historical phenomena; they are embedded in time, in development, in evolution. Evidently, they have meaning only in the context of previous developments – without this context they have no meaning whatsoever.[158]

Each chapter of this document provides a sample of India's vast musical spectrum within a pedagogical formula. Understanding the history of Western wind instruments' development within the framework of Indian musicians is necessary to devolve a perception of cultural timbral aesthetics.[159] This is not to suggest complete abandonment of classical saxophone tone qualities we universally perceive as proper performance practice in the West, but to stretch our boundary of interpretation to achieve stylistic hybridity. From there we can delve into Indian melodic and rhythmic systems.

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[158] Wim van der Meer, "The Systematic Approach in Studying Hybridity of Music-Cultures," *Journal of the Indian Musicological Society* 36-37 (2006), 17-18.

[159] Discussed in Chapter Two

Discussed in Chapter Three, Hindustani music serves a gateway to Indian melodic (*rāga*) theory for the uninitiated Western performer. *Raga Music for Solo Clarinet* translates to the saxophone when contemplating a musio-culturally sincere approach without the obstruction of too many parameters.[160] Western classical, rock, and jazz musicians have studied and performed alongside Hindustani musicians since the mid-20th century so there is a precedence that eases our understandings of this new material. Saxophonists can utilize prior classical musician's interpretive shifts as a foundation for hybridization.[161]

Exploration of another culture's music not only generates new comprehensions for performers, but may uncover misconstructions of material in a non-Western influenced composition such as *Gavambodi 2*. *Gavambodi 2* is a unique work that hybridizes Jacques Charpentier's compositional vision[162] with Olivier Messiaen's rhythmic interpretation of the *deci-tala* system. It is imperative to appreciate the multiplicity of influences found in this work before deconstructing it to its Carnatic origins. In Chapter Four we find that Charpentier intentionally used a misspelling of *mēla gavambodhi* to compose *Gavambodi 2*. This is pertinent when attempting to coalesce techniques to reflect *rāga* ornamentational nuances through superimposition. In actuality

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[160] The main parameter is application of *tāla* theory. Discussed in Chapter Two, the clarinet had an active role in traditional Indian music long before saxophone. Therefore, through the vantage point of a displaced Indian composer within a Western compositional system using Hindustani language, hybridity is already active.

[161] The violinist Yehudi Menuhin (1916-1999) is an excellent example of hybridization working with both John Mayer and Ravi Shankar.

[162] Incorporation of the Carnatic *mēlakarta rāga* within the parameters Western form and harmony.

Chapentier used *mēla syamalangi* so it is therefore appropriate to use *gamakas* associated with the ‘correct’ *mēla*. The question then arises whether performers should choose to fix the mistake of altering the second scale degree down a half-step to properly spell the *rāga* or accept it and approach the work as a different *mēla* when incorporating Carnatic practices.[163] Style is present on multiple levels in music, it is up to us to choose a medium and facilitate its integration.

Hybridization of techniques brings about the question of authenticity. Should we limit interpretation as isomorphic, based on the musical object in question?[164] With the practice of musio-cultural synthetization authenticity becomes ambiguous. The musical object should be accepted as multifaceted and approaching it from a different point of view may reveal a new expression. It is without question that despite ambiguity of origin, exploration of traditional values must be performed with sincerity.

Shruut by Jorrit Dijkstra provides another component to the interpretive equation. Influenced by a motive from the Satyajit Ray film *Charulata*, Dijkstra constructs and disseminates his own compositional vision for saxophone quartet and electronic shruti box. Chapter Five explores a performance approach that extends beyond the surface influence of *Shruut* with aspects of film character development in mind along with Indian pedagogical nuances. A new conceptual soundscape emerges through the assimilation of film and rhythmic traits as to further propel its non-Western roots.

Music is not only creative but re-creative. Classical saxophonists should not be fixated on whether they should integrate new parameters discussed in this document but utilize them to further musical comprehension from a global perspective. It is not new to say the saxophone has crossed cultural boundaries, but it is enlightening to encapsulate its new guises by performers from different cultures. Through uncovering different cultural pedagogies, saxophonists expand upon their interpretive versatility and bring forward a stylistic hybridization that better represents the Indian influences of these three compositions.

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[163] Gamakas (ornaments) and drone pitches.

[164] Musical object refers to the style in which it is composed, the period practices of the work, and the musical context in which it is delivered based on Western pedagogical standards.

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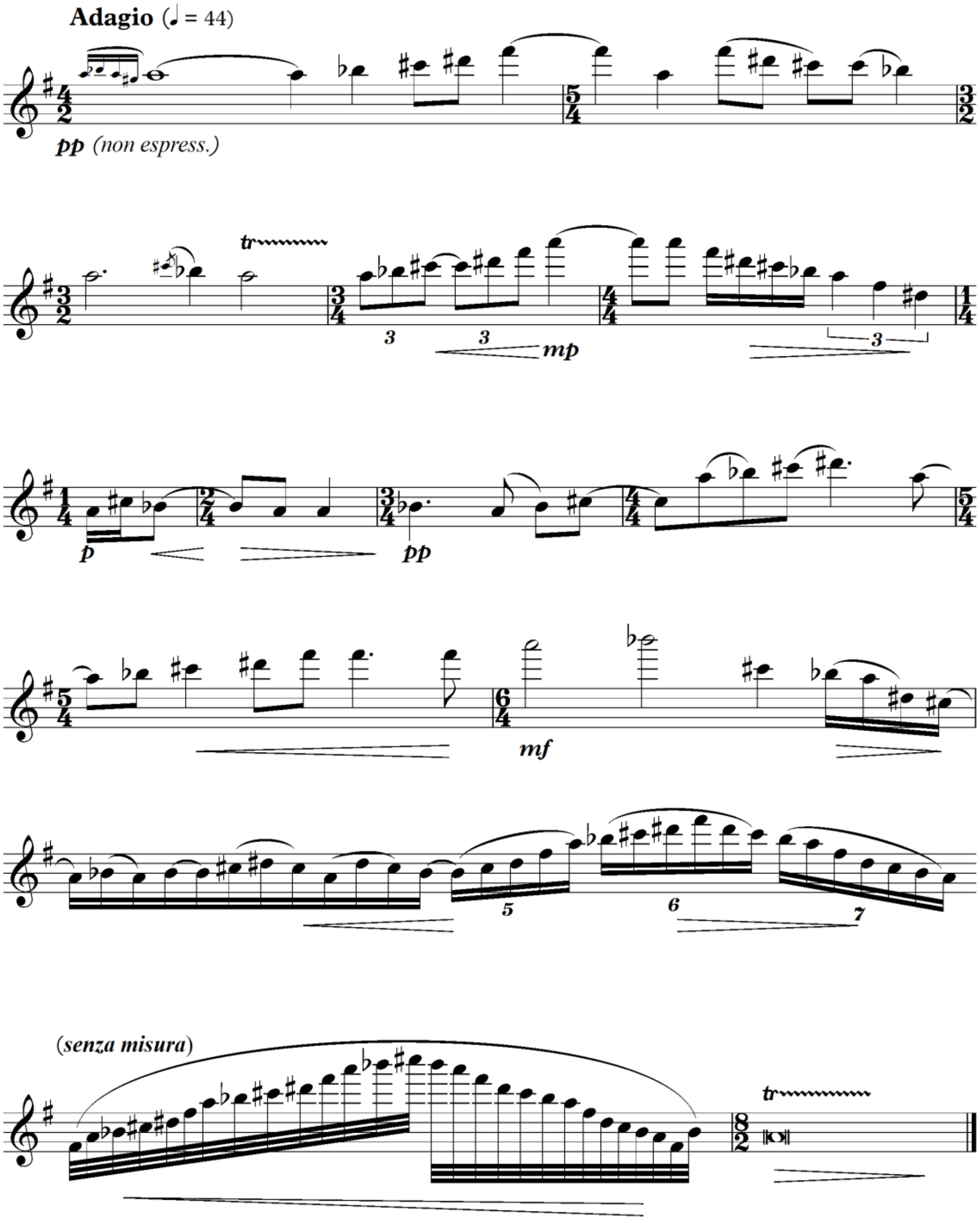
APPENDIX A

3

VIBHASA
(Sunrise)

Solo Alto Saxophone

John Mayer
trans. by Stan Flanders

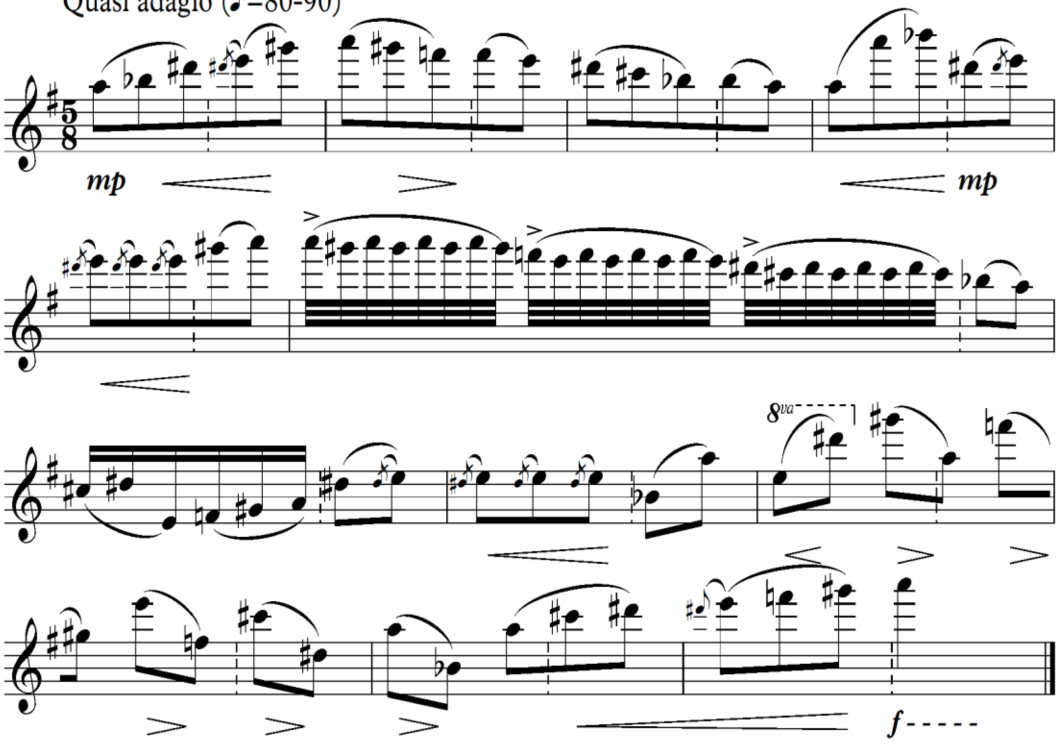

Adagio (♩ = 44)
pp (non espress.)
tr
3
3
mp
3
p
pp
mf
5
6
7
(*senza misura*)
tr

5
SHRI
(Afternoon)

Solo Alto Saxophone

John Mayer
trans. by Stan Flanders

Quasi adagio (♪=80-90)



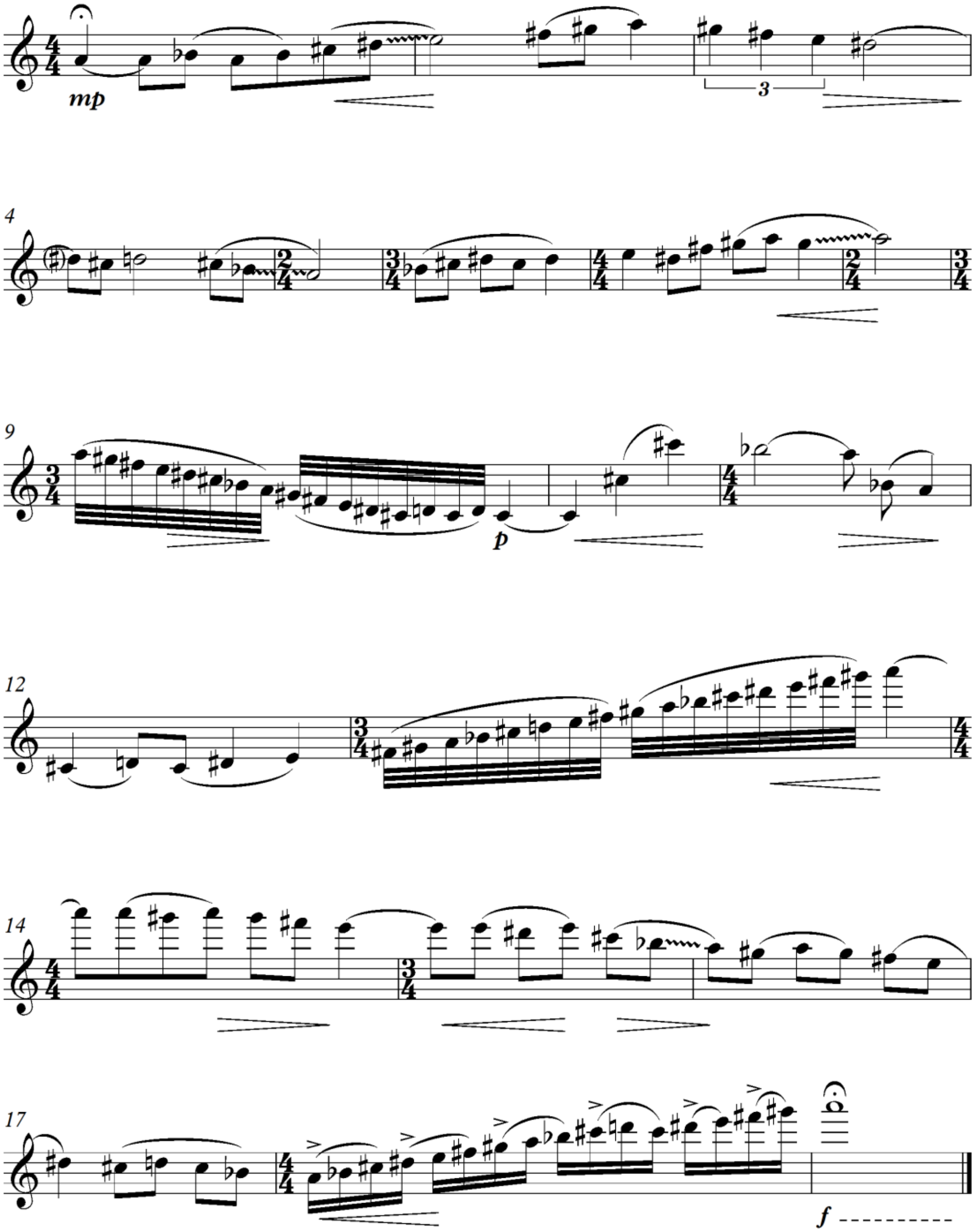
7

PURAVI
(End of Day)

Solo Alto Saxophone

John Mayer
trans. by Stan Flanders

Molto moderato (♩=54)


mp
3
4
9
p
12
14
17
f

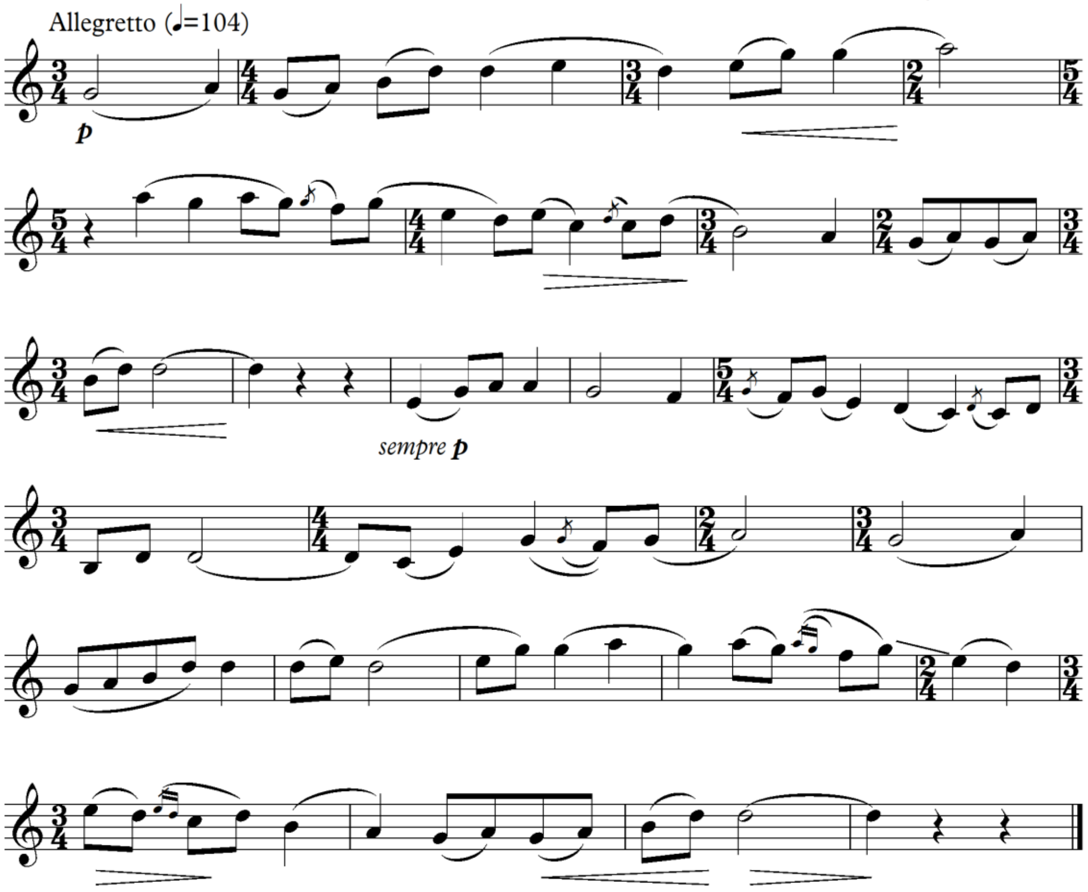
8

KANADA

(In the deep of Night)

Solo Alto Saxophone

John Mayer
trans. by Stan Flanders


Allegretto (♩=104)
p
sempre p

APPENDIX B

Instrumental Index

- Bansuri – South Asian traverse flute made of bamboo with six to seven finger holes.
- Mridangam – double-headed, barrel-shaped drum that serves as the predominant percussion instrument in Carnatic music.
- Nadaswaram – a Carnatic aerophone similar to the *shehnai* but much longer. It's construction consist of a double reed, a conical bore wooden body with seven open tone holes with five additional tone holes that can be modified with wax stops.
- Sarod – short necked plucked lute associated with Hindustani classical music.
- Shehnai – a Hindustani aerophone similar to the oboe. It's construction consist of a quadruple reed (two per side), a conical bore wooden body with six to nine open tone holes, and a flared wooden or brass bell.
- Shruti box – droning instrument. Uses a system of bellows to produce organ-like reed timbre. Electronic shruti boxes or *shruti petti* are commonly used today.
- Sitar – long necked plucked lute associated with Hindustani classical music.
- Svaramandal – board zither stringed instrument often used for accompanying vocal genres. Timbre reminiscent of a harp.
- Tabla – pair of drums that serve as the primary percussion instrument in contemporary Hindustani classical music.
- Tambūra – a plucked lute that's primary function is to act as a drone in Indian music. The most common droning pitches are I-IV (*sa-ma*) or I-V (*sa-pa*)