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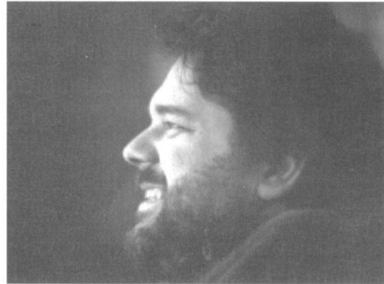
Stepping on the Cracks or, How I Compose with Indian Music in Mind

Sandeep Bhagwati



*Sandeep Bhagwati is a composer, multi-media artist, festival director and writer on music. Born in 1963 in Bombay, he went to school in Germany and studied conducting and composition in Salzburg, Munich and Paris. He has founded two festivals of contemporary music, "A*Devantgarde" in Munich (with Moritz Eggert) and "KlAngRiffe" in Karlsruhe. Bhagwati has won prestigious composition prizes and awards, and was composer-in-residence of the Beethoven Hall Orchestra Bonn. Since 2000 he has been professor of composition at the Music University of Karlsruhe. For the past two years he has led a project with the Ensemble Modern and Indian classical musicians that aims at re-launching compositional and theoretical exchange between Western contemporary and Indian classical music. First results will be presented in a Berlin festival in Autumn 2003. This paper examines Bhagwati's development as a composer and his recourse to aspects of Indian tradition, among other sources.*

1. Youth

Any history of my experiments with multi-rooted music must start with an account of my youth. Born into a heterogeneous family—my mother German, my father Indian—I spent my early years in India. At the age of 6 my family settled in Europe and the link to India became more tenuous. Visits to India initially were long and frequent but they became rare after my coming of age. Growing up as a multi-rooted person in a rather monocultural environment, such as Germany or—equally but in a different mode—India of the 1960s and 1970s, makes you an expert on your own ignorance. Every person you meet expects you to be knowledgeable about things from the other culture, mostly things you do not know. To cope with these demands I sometimes invented realities within the other culture that I surmised the person facing me would like. My success as an exotic storyteller about India in Germany and about Germany in India opened my eyes to the fact that our knowledge about the

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Other mostly depends on our own desires, not on any intrinsic quality the Other might possess. I must have been nine or ten years old.

My musical life for a long time remained informal. My mother is an excellent pianist—her playing still is superior to mine—and my father an eclectic music lover: he was the one who beside Western classical music introduced popular music in our home: Pink Floyd, the Beatles, Mukesh, Lata Mangeshkar and Queen among them. Indian classical music was present, too. During some of our sojourns in Bombay I had introductory lessons on *sitar*, went to concerts (especially the St. Xavier's College Festival) and bought many records (amongst which I especially remember one called "beat and bow" by Ram Narayan and his brother Chatur Lal, and one by Chitti Babu) and some erudite and/or condescending books on Indian music which I found more confusing than helpful.[1] They either spoke at length about general ideas or lost themselves in minute details of theory. I, however, needed concrete information on what an Indian musician actually does and thinks while playing. Only over the past fifteen years have books appeared that address these questions succinctly.[2] But, all in all, my musical education, haphazard and diverse (I quit piano lessons early, then founded a rock band which disintegrated because my "songs" demanded too many rehearsals), nevertheless rested on the Western tradition and the piano—which I studied in an unconcentrated manner for another few years, always being more interested in sonorities I could produce and textures I improvised than in learning the Chopin etudes and Beethoven sonatas my teachers wanted me to study.

From the moment he had accepted that I wanted to become a composer, my father dreamt of me as someone integrating Western and Indian musical influences into something new. Over the years he gave me Ravi Shankar/Yehudi Menuhin and Anand Shankar records, I listened to Trilok Gurtu and Shankar (the ten-string violinist) and later even to L. Subramaniam's early "fusion" records. All these experiments sounded like a grotesque misunderstanding to me. Moreover, fulfilling your fathers' wish seemed so un-German in the early 1980s. I desperately wanted to be accepted as a "true" German, and that, I thought then, must include shutting my ears to Indian music and concentrating on the Western avant-garde: a rich field I had discovered without any parental or schoolteacherly guidance, where I could go on my own, seemingly untutored and unfettered by any tradition. By the way: looking at my own students now, this feeling of self-liberation still seems to be a prevalent motivation for young composers entering the Western avant-garde. This might well serve to explain its survival against persistent public disregard: radical rock and avant-garde art music could be seen anthropologically as two sides of the same coin—as a means of shutting your ears to your parents. This might also explain why societies like India that have a different perspective on family relations do not tend to foster the concept of an avant-garde in music.

All this backfired as soon as I made my way out of university into the unsheltered life of a freelance composer. In every interview, every public debate, every musical context people wanted to know how I dealt with my Indian roots. Sometimes they even were accusing: "Your music does not sound Indian at all."—"Why should it?" I

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retorted. "But where is the Indian side of you in your music?" they insisted—"How the hell should I know?" I exclaimed, exasperated already. "So it seems you have not found your identity!" they concluded with a smirk. That smirk meant as much as: "He is not yet a composer to be taken seriously. He does not know who he is himself."

2. Soaking up Rhythms

It took some time to free me from this liberation thing. A demand from a producer at Bavarian State Radio that I write a broadcast about Indian percussion instruments in a series entitled "Percussions of the World" or similar turned out to be a decisive step. Protesting that I did not know anything substantial about Indian music I acquiesced—and began research on rhythmic theories for the northern and southern drums *tablā* and *mrdanga*. I was 30.

Imagine my astonishment when I discovered that I had unwittingly written quasi-Indian rhythms for many years already! As part of my language in these first years of independent work I had had a strong penchant for structural composition, constantly "inventing" (as I thought then) new systems of compositional organization, in a rather neo-serialist way. In rhythm, I now discovered, I had re-invented many Indian concepts, such as the *tihai* (a triple-cadential form) or the *mora* (a waxing or waning cadential form).

I had devised non-cyclic but regular rhythmical structures that became meaningful because there was a cyclic process in the background, like a simple process in my piece *Collages* (1991), where I set a duration sequence of 1-2-3-4-5-4-3-2-1 against five cycles of five beats and contrasted it with a sequence like 3-1-4-1-5-9-2 (a numerological joke on cycles: this sequence consists of the first seven numbers of *pi*): all these have a common total duration of 25 units. Other examples are the counterpoint of two cyclic processes at different speeds, a pervasive subcutaneous practice in many of my early pieces, such as *Book of Sands* (1989), or the Perotinus movement in my *Cello Sonata* (1990), a device that especially South Indian drummers employ as a matter of course. The hilarious aspect was that until this moment I would consciously have traced the lineage of my structures to a glancing acquaintance with early medieval isorhythms, keeping to the usual serialist legitimation procedure—I had much more probably soaked up these principles during many years of relaxed "easy" listening to Indian music.

3. Conscious Integrations

From then on I consciously started to integrate Indian rhythmic thinking into my work in a very idiosyncratic manner: the string quartet *alaam al mithral* (1994), despite its references to Sufi mysticism and its use of Arabian "maqams" rather than In-

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dian *rāgas*, is constructed entirely on the principle of overlaying rhythmical cycles: the two violins and the viola each have a different *tāla* (of my invention), which in my sketches is notated *theka*, that is, without improvisatory embellishments.

The three *tālas* make their way independently (Fig. 1), but it is in the nature of things that their three *sams* (strong accents) will coincide at regular intervals (at the point of the smallest common multiple): these moments indicate decisive changes in texture, melodic gesture or harmonic movement. The violoncello, by the way, has a role apart: it plays a resultant rhythm that arises whenever two or three of the voices above play a beat. My interest in writing this piece was: given this solid rhythmic base, how can I still compose many different musical textures and—in essence—different musics? *Alaam al mithral* is a collation of twenty-five different short string quartets that have one thing in common: their basic rhythmic structure.

Fig. 1. Sketch showing three different tālas *in* alaam al mithral *for string quartet.*

4. Fractalizing *Tāla*

In *alaam al mithral* only the duration aspect of *tāla* was of interest to me. But *tāla* is decisively more than just a collection of durations: it also comprises (in the *bols*, the spoken version the drummer learns before playing) a lot of timbral information—each *bol* stands for a specific way of striking the drum to produce a specific sound. In my orchestra piece *Ritual Virility Machine* (1998), since reworked and melded into the larger context of another piece called *Entrances* (2000), this information is as determining as another experiment: the fractalization of *tāla*. The entire composition rests on one version of the *sawari tāla* (thirteen matras) as in Fig. 2:

Fig. 2. Sawari tāla *in* Ritual Virility Machine.

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Fractalization now means that the whole length of the composition is subdivided into parts that mirror in length the relative durations of the forty-one attacks of the *sawari tāla*. Each of the *bols* on this level stands for a specific timbral texture or sound agglomerate. But, one level down, each of these forty-one parts is again partitioned into forty-one subdivisions: these specify certain rhythmic, timbral or harmonic events within each part, again in correlation with the *bols*. Finally, the *tāla* itself appears as a concrete rhythmic element at the lowest level.

At the time of composition, I even dreamt of carrying this idea into the microscopic (synthesizing electronic sounds whose very sound waves obeyed the same subdivisional rules) and the gigantesque (writing a cycle of forty-one orchestral pieces triggered by the same durational and timbral relationships that govern *Ritual Virility Machine*), but any idea, even a good one, can be overdone. And, besides, other facets of Indian aesthetics had caught my attention.

5. *Nātyaśāstra* as Informatics

In 1997, while researching for my opera *Ramanujan* (1995-98)[3] I also studied the *Nātyaśāstra* (attributed to Bharata, compiled in either the first century BC or the first century AD), the ancient Indian treatise on theatre and dance (and, to a limited extent, also music). This astonishing text triggered a new wave of compositional interest in Indian music. I was immediately captivated by the way the authors of the *Nātyaśāstra* organized and codified aesthetic knowledge. To me this principle epitomizes Indian thinking about art. Large portions of the book consist not of theoretical ruminations but of lists. Sometimes, these are hierarchical but mostly they are lateral classifications of artistic expressions, always staying extremely close to observation and practice—and yet they are highly formalized.

There are, for example, detailed descriptions of how a woman receiving an angry letter from her lover might show her reactions to this event, depending on what has gone on before. All relevant body postures signifying each reaction are listed and the dramatic consequence and import of each posture is sketched, before the book goes on to describe what happens if the angry letter is not from her lover but from a suitor or if the letter is friendly, for instance. This method of breaking down artistic expression into independent functional elements is very similar to the architecture of what are called object-oriented computer languages (some of which, such as MAX/MSP and Patchwork/Open Music,[4] I had then already been using for years in my own work). In fact, the *Nātyaśāstra* structurally resembles nothing so much as a software manual.

And, just as in a computer language these informatic objects are assembled into a coherent computer programme—a programme that transcends by far the scope of the rather dull individual objects—the aesthetic objects of Indian performing art also are properly assembled into a coherent concept, into a convincing performance by the artist. In fact, artistic education in India ideally enables the student to learn how to

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manipulate these aesthetic objects meaningfully—in our analogy, Indian musicians learn how to program, not how to operate a given programme perfectly (this, in our analogy, would be the paradigm of Western musical education).

6. Object-Oriented Organization

It took me a few years to understand the implications of this insight for my own compositions. I had grappled with a similar approach during 1996 and 1997 already: in a choir piece called *chants translucent ephemeral* (1996), the singers themselves by their individual, non-coordinated decisions fashion the form and many sound-relevant aspects of the music.[5] In *Three Women* (1997), a music theatre piece, the performers and the director can actually generate the temporal and musical form of the piece during rehearsals, much as in a normal text-based drama, where the temporal and sound structures that make up the performance are also not fixed by the author.[6]

I wrote other pieces, occasionally integrating melodic aspects of certain *rāgas* into the music in ways similar to the procedures I had applied to my reading of *tālas*. One example is the song "I Woke Up" from my song cycle of Dilip Chitre's poems *Songs on Nothing* (2002) (Fig. 3), where the violin at the beginning clearly expounds *darbari kanada*, this most majestic of *rāgas*. This embodies the confident "I" of the poem's beginning, and then I let the disintegration of the *rāga* mirror the erosion of the narrator's confidence in the course of the text.

Fig. 3. "I Woke Up" from the song cycle Songs on Nothing.

But these approaches to Indian music already were minor matters to me: during all these years I tried to find ways of grappling with the open, object-oriented structures of Indian musical thinking, trying to find analogies that would work for: a) Western musicians, and b) polyphonic music. The first conscious step in this direction is a piece I am still in the process of writing. It is called *Rasas – Ritual and Sophisticated Areas of Sound* and was commissioned several years ago by the Ensemble Modern.

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7. *Rasas*

Rasas is a piece for seventeen musicians. It consists of sixty-four sections arranged in a rhomboid matrix (Fig. 4), with possible 161 interludes between them. Before each performance the musicians have to decide on a pathway through this matrix, following the interlude lines from the leftmost section to the rightmost. This will be the sequence of sections and interludes that make up this particular performance.

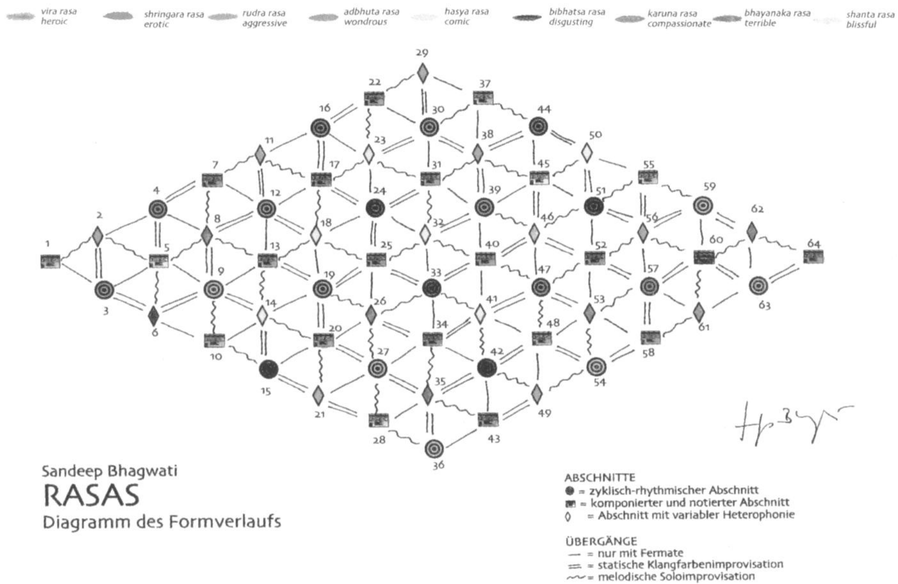

Fig. 4. Matrix of sixty-four sections in Rasas.

Each section can be one of three types:

1. "Bandish" i.e. a fully composed section in conventional score notation.
2. "Taal" (*tāla*), a section where melodic and harmonic development is given, but one group of musicians improvises rhythmically against the backdrop of cyclical or regular rhythmic composition played by another group.
3. "Raag" (*rāga*), a section where certain melodic and modal information is given and several soloists pick their way through a melodic field, whereas the group performs a pre-composed non-cyclic composition.

Each performance of *Rasas* is a unique musical event, not only because the musicians improvise, but also because the entire form of the piece changes every time. The duration and even the emotional and formal structure of the piece can change considerably: a "standard" passage through the matrix would include fifteen sections with fourteen interludes, but this can easily be extended to all sixty-four sections and sixty-three interludes, or even more, if one allows looping pathways etc.

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But these are aspects not unique to this piece; they are mere variants on structural ideas that have been around for thirty years, since the Fluxus movement, in fact. What interests me most in composing this piece are the internal structures of the "raag" and "taal" sections. I will, for lack of space, just discuss the general structure of the "raag" sections. The musician will see on his part up to seven distinct parameters to take in before or during performance of a defined section (Fig. 5):

1. A pitch set (that can be either octave specific or just a collection of pitch classes)
2. Some melodic key phrases (beginning, signature, cadence) within this pitch set
3. Preferred melodic contours (how the melody in this rāga is likely to move: is it up-up-down-up, up-down-up-down-down or something else)
4. A rhythmic timeline (to follow the conductor) with precise indications as to where it is allowed to play and where not
5. Two or three key rhythmical cells
6. A diagram indicating preferred playing techniques and articulation (e.g. 30% staccato, 50% frullato, 30% dolcissimo).
7. A miniature score of what their "fixed-composition" oriented colleagues are playing, if the player is expected to comment on it with his improvisation.

All this information enables the individual musician to improvise within a clearly circumscribed framework and allows the composer to retain control over collective sound-processes, harmony, instrumentation and other elements. It also affords maximum clarity to the conductor, who still knows what happens when. But after having set up all these parameters I realized that none of them would really help the musicians to actually understand what they were supposed to project emotionally. And I saw that this actually would always be the central challenge of playing *Rasas*. For, on one side, Indian musicians are always soloists. They can find their emotion in the act of playing to the audience. On the other side, European musicians have sheet music they can study. They aim at re-enacting the composers' complex emotions via repetition, consensus and an inner search.

A piece such as *Rasas*, however, that changes shape every time you want to perform it, with clear-cut and taxing instructions (plus the discipline in following a conductor) leaves little leeway for either of the two approaches. It needs a different and new approach to finding the music through the sounds, an approach each ensemble studying this piece has to find anew, on their own. The least I can do as a composer is to help a little.

This is where the title of the piece comes in: *Rasas* stems from an Indian aesthetic theory. This is a highly developed system of classification (again!) for the emotional content of works of art. Nine *rasas* are usually cited: *śanta rasa* (peace, bliss), *śrngāra rasa* (love, erotic), *hāsya rasa* (comic), *vīra rasa* (heroic), *karuna rasa* (empathy), *bībhatsā rasa* (disgust), *adbhuta rasa* (wondrous), *bhayānaka rasa* (horror/terror) and *raudra rasa* (rage/violence). According to the *rasa* theory, these emotional basic building blocks are present in every artistic utterance, albeit in different mixtures and degrees of clarity. In my composition each of the sixty-four main sections is dominated by one *rasa*, and I have looked for a title to each section that would be

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Sandeep Bhagwati RASAS

Parameters for RAAGS-Sections

Parameter	Possible States	Notation
R1 **Pitch Set**	1. octave specific 2. not octave specific	⑧ ↕8
R2 **Melodic Key Phrases**		
R3 **Rhythmic Timeline**		
R4 Key **Rhythms**	a)conventional symbols b) associative graphics	etc. etc
R5 **Melodic Contours**		
R6 **Articulation**		
R7 **Background Score**		

Fig. 5. Distinct parameters for the musicians in Rasas.

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suggestive to the musicians, but not one-dimensional. Sections with *hāsya rasa,* for example, are entitled as follows: "chaplin," "groucho," "idle chatter" (referring to an electronic composition by Paul Lansky). Sections with *adbhuta rasa* include: "labyrinth," "eclairs sur l'au-delà" (referring to Messiaen, of course), "imam bayildi" (a Turkish dish so delicious that an Imam was overwhelmed, collapsing in delight to the floor) and "gandharva" (a celestial singer). The titles will indicate to the musicians what kind of emotion they need to evoke. I will, in addition, furnish texts, images, films or recordings—in short, anything that can help the musicians to prepare themselves emotionally.

Rasas still is in the making. The Ensemble Modern will perform a first version in May 2003 in Frankfurt. Only one pathway consisting of fifteen sections will be ready by then. I need to use the experiences of this first performance to hone and fine-tune my concept. Refining and re-defining *Rasas* will be with me for years to come.

8. Hidden Agendas, Cracks in the System

When I started to learn music, Western or other, nothing my teachers and peers would tell me could ever be true in any absolute sense. I always looked for cracks in the system of thought that surrounded me, not out of sheer disrespect nor out of any desire for revolt or subversion, but out of my childhood experience that told me that rules are local and formed by men, not by gods.

If the rules for making music are local, the emotions they express must also be local—and this matches my own emotional reality: I am a different emotional person when in India than when in Europe. Emotional reactions to artistic expressions are to a great extent an acquired culture, so how could anything a teacher in one culture says about indicators for emotional depth be relevant to any other music? For me, those who claim universality for any music have either deplorably fallen prey to parochialism or are cynical promoters of fake wisdom.

I became an expert for listening not only to music but also to hidden agendas, to unspoken assumptions and tacit codes that pervaded the performed music around me, whether it was John Cage, Ali Akbar Khan, Claudio Monteverdi or Zakir Hussain. I needed to understand not only what they wanted to say and how they said it, but also why they wanted to say and do it. And I looked for answers beyond the music itself, looked at the listeners, the performance settings, the economics of music making. In retrospect, this seems to be a very social anthropological approach, but at the time (and even now) I never experienced it as any kind of scientific activity. For me it has become the mode my musical intuition happens to work in. It is this approach that helps me again and again to compose with different musics in mind, whether with Chinese music, as in *Dictionary of Winds* (2002);[7] Arabian music, as in *alaam al mithral*; Polynesian music, as in *Ghat Biwa*; or Indian music. I first try to understand as much as I can about the music, the players, the settings, the context of the performance, the expectations of the probable audience and the aesthetic de-

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mands I currently make on myself. All this, far from hindering me, actually helps me to compose a space that my piece then can start to explore.

Thus, crossing through the cracks into the unknown seems to fire my imagination more than doing again what I already can do. I have never been on the lookout for my own musical "language." I strongly suspect there is none to be found in my work. One thing has changed, though, since my confrontations with well-meaning listeners who admonished me for sounding so un-Indian. I have lost interest in wiping smirks off other peoples' faces. Let them smirk, for *Rasas* will probably sound even less Indian than any of my other pieces before it.

9. End Game

When I was a child, we played the age-old game called "Heaven and Hell" where, with one foot, you are supposed to hop from "Hell" to "Heaven" and back on certain floor tiles. You must never step on the cracks between the tiles—else you lose. Very soon, we found this too facile; instead of truly exerting ourselves we just concentrated on not making any mistakes. The game became boring, our faces dour.

I then introduced a new rule: you *have* to step *only* on the cracks, splitting your foot lengthwise. We all ended up in terrible contortions, wildly laughing: none of us ever got to heaven and back in one piece. But the excitement still has not paled....

Notes

1 Examples included Bandoypadhyaya 1958, Shankar 1968 and Daniélou 1968.

2 Notably Wade 1984, Qureshi 1995, Bagchee 1998, Pesch 1999, the wonderful Bor 1999 and Aurobindo Society 2001.

3 This is an opera on the life of India's most famous mathematician, Srinivasan Ramanujan (1887-1920) from Kumbakonam. Besides other, more spiritual matters, it is also an account of how contact between two vastly differing cultures can go fatally wrong. It was first performed at the 1998 Munich Biennale for Contemporary Music Theatre.

4 "MAX/MSP" is a software toolbox for tailor-made construction of electronic music circuitry, together with control objects for external devices (from samplers to video generators). It is mostly used for real-time interactive electronic music. "Patchwork" and "Open Music" are offline softwares for the composer's desk: here one can generate structural elements of composition (for example, complex harmonic progressions, spectral harmonics, long-range rhythmic developments, complex transformations of pitch and duration series). They can also be used to analyze sound samples (for instance, transforming recorded music into notation) and to calculate and manipulate raw data for sound synthesis. Both were initially developed at the IRCAM Studios in Paris.

5 The piece consists of forty-nine chants, each in up to twelve parts. Each singer is asked to independently choose his or her seven favourite chants and to select a part. The collective decision gives rise to a fragmented form of the composition. It is left to the conductor if s/he

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wants to perform it like that or make the "unchosen," the "missing" parts and chants, audible to the public too (for example, by having them hummed discreetly or played by instruments). The piece has never been performed with this procedure. For the first performance 1999 in the *Eclat* Festival Stuttgart the singers of the SWR Vokal Ensemble forced me to prepare a "composer's version" (they considered participation in the making of a composition not part of their contractual duties and demanded extra pay!). I re-arranged the piece into a music theatre installation with interpolated texts—a satire on ethnomusicological lectures—and called it *The Music of Ghat-Biwa*, Ghat Biwa being a fictitious Polynesian island that somehow evokes Bhagwati. This procedure belongs to the possibilities explicitly specified in the manual I wrote to the composition (which is almost as voluminous as the score).

6 I myself directed and designed the first performance at IRCAM/Centre Pompidou Paris.

7 A composition for baritone, soprano, an ensemble of Chinese Instruments, an ensemble of Western instruments and two conductors, it was first performed at the "MaerzMusik" Festival 2002 in Berlin with Shi Kelong, Ellen Schuring, China Found Music Workshop Taipei (conducted by myself) and the Nieuw Ensemble Amsterdam (conducted by Ed Spanjaard).

References

Aurobindo Society
2001 *Alaap*. Pondicherry: Times Music. (20 CDs, 1 Book).

Bagchee, Sandeep
1998 *Nad. Understanding rāga Music*. Mumbai: Eeshwar.

Bandoypadhyaya, Shripada
1958 *The Music of India. A Popular Handbook of Hindustani Music*. 2nd edition, Bombay: D.B. Taraporevala. (3rd edition 1970)

Bor, Joep
1999 *The Rāga Guide: A Survey of 74 Hindustani Rāgas*. Monmouth: Nimbus Records.

Daniélou, Alain
1968 *The Ragas of North Indian Music*. London: Barrie and Rockliff. (revised edition 1980, New Delhi: Munshiram Mansharlal)

Pesch, Ludwig
1999 *The Illustrated Companion to South Indian Classical Music*. Delhi: Oxford University Press.

Qureshi, Regula Burkhardt
1995 *Sufi Music of India and Pakistan: Sound, Context, and meaning in Qawwali*. Chicago: University of Chicago Press.

Shankar, Ravi
1968 *My Music My Life*. London: Cape.

Wade, Bonnie C.
1984 *Khyal: Creativity within North India's Classical Music Tradition*. Cambridge et al.: Cambridge University Press.

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