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Raga of the third space: recombining music, architecture & culture.

Dewar, William James

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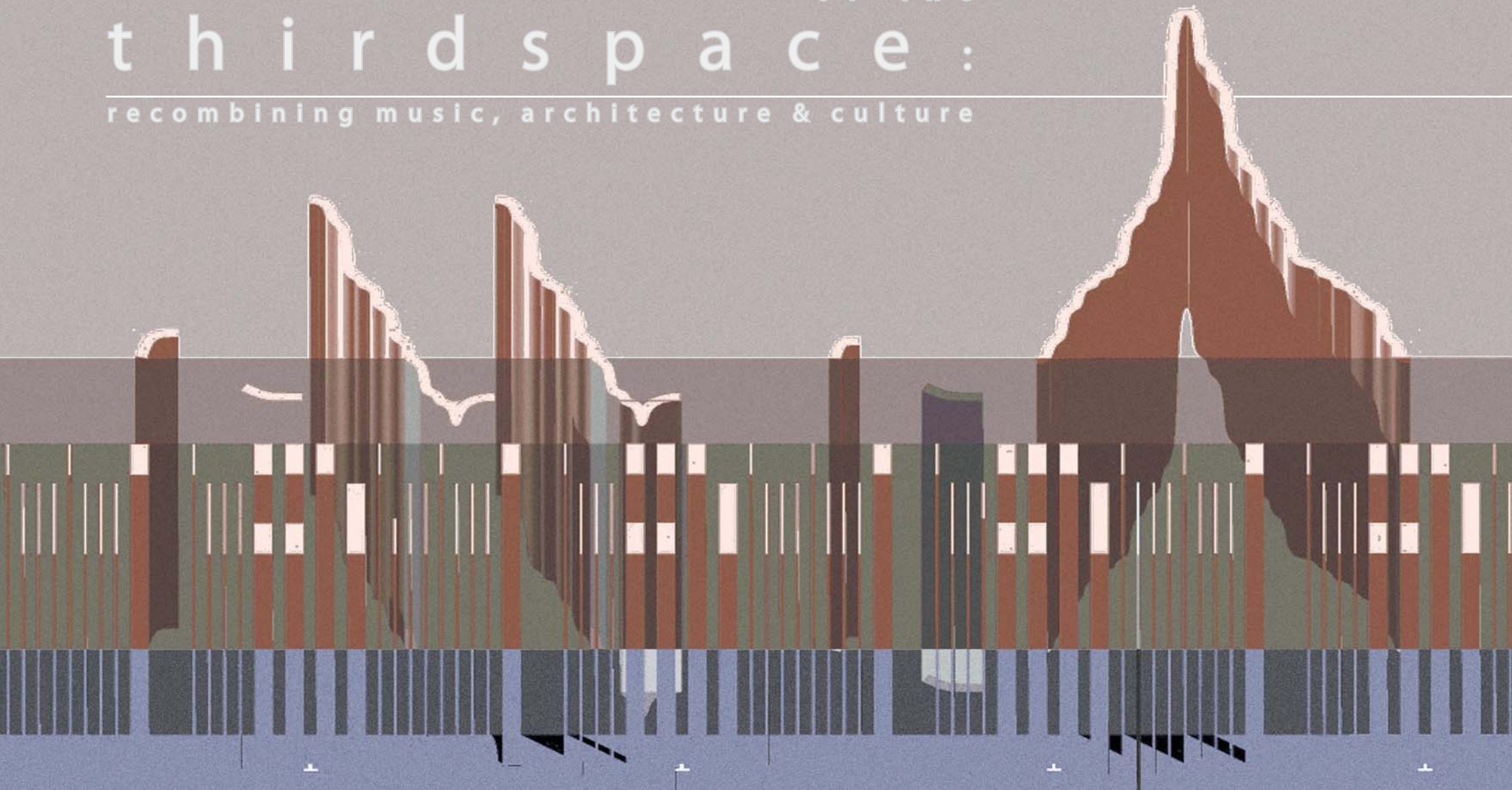
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Rāga

of the

thirdspace:

recombining music, architecture & culture



D E C L A R A T I O N

I, William James Dewar (0602949N), am a student registered for the course Master of Architecture [Professional] in the year 2011. I herby declare the following:

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William James Dewar
12 December 2011

This document is submitted in partial fulfilment for the degree:
Master of Architecture [Professional] at the University of the Witwatersrand, Johannesburg, South Africa, in the year 2011.

A C K N O W L E D G E M E N T S

Thank you to my family for all the unwavering support over the past six years;

to Dr. Jonathan Noble for his ever-open-minded mentorship and friendship;

to friends both inside and outside the architectural world

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CONNECTION

This graphic shows the idea of being able to connect one knowledge base to another through a thin and pliable membrane

A B S T R A C T

Raga of the thirdspace is an approach to negotiating the interface of culture, music and architecture in Johannesburg, a city where all the ingredients for a positive and radical cultural change are present, but remain hidden and disconnected.

The analogous structural frameworks of both Raga (the central concept of Indian classical music) and thirdspace (a post-colonial spatial concept which positively negotiates the way in which cultures may have meaningful contact) are powerful improvisational tools in suggesting an appropriate architectural approach that could realign both music and culture in Johannesburg. This approach has primarily to do with methods of translation; both cross-cultural and cross-disciplinary, where more often than not, the process seems to be of more interest than the product.

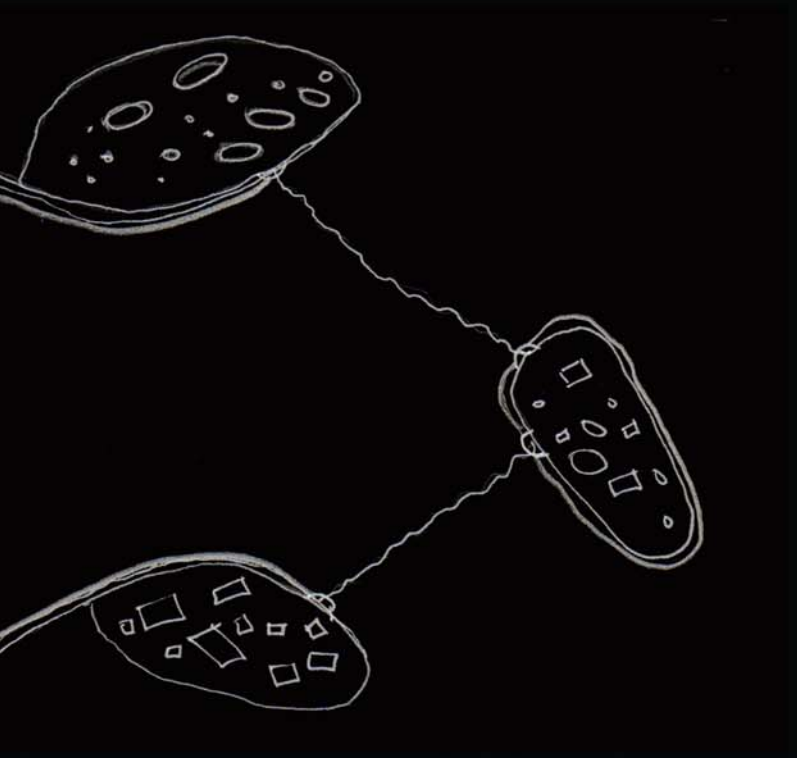
In the case of this thesis, this is done by placing a school for Indian classical and cross-over music in Yeoville, an inner-city suburb, which is now, as it has always been, a melting pot for people of different cultural backgrounds and a place with a distinctive creative energy. Yeoville's high street presents itself as a point where geography and history intersect in such a way that it begs the inclusion of a third element; the disparate musical fragments of what are the potential beginnings of a meaningful cultural recombination.

Placing Indian classical music in Yeoville is a strategic move. It aims to establish and promote Indian classical music in a country where it goes chronically unrecognised, but more importantly it does so in a way that avoids embedding this music form in an Indian cultural context, thus perpetuating Apartheid spatial logic.

It is out of this kind of spatial thinking, or architectural intervention, that new and rich musical forms may emerge; the arbiters of a new and rich culture.



WILLIAM JAMES DEWAR (0602949N)



TRANSLATION
showing a product-focused approach where the translation is percieved as separate entity

WONDERWALL, 1968 (facing page)
painting by Bob Gill on the cover of the album containing the music from the film of the same name. The music was put together by Geroge Harrison in December 1967 with the help of a number of Indian musicians at the EMI studios in Mumbai. It has a variety of Indian sounds, which was to be the inspiration for the Oasis track "Wonderwall".

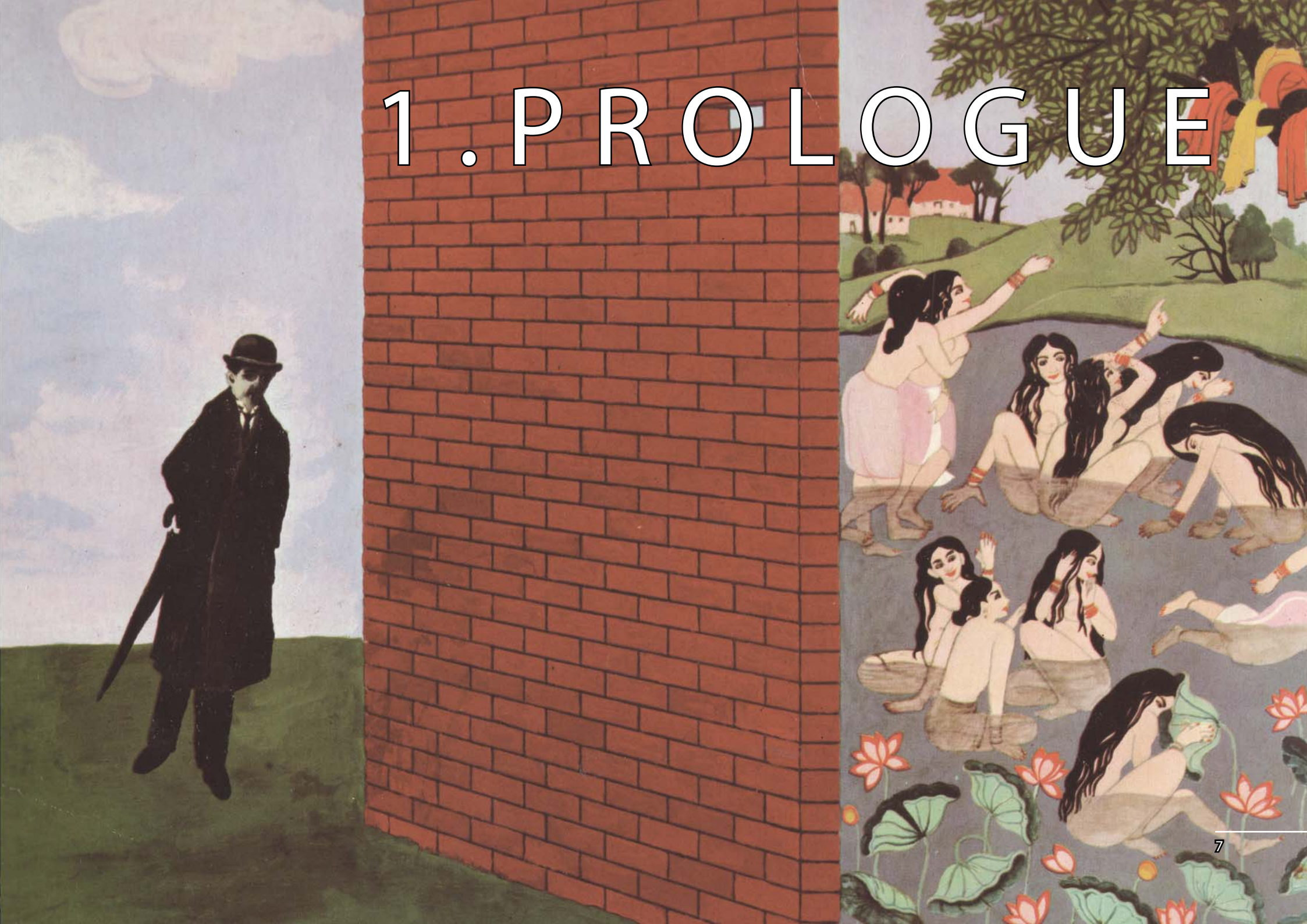
The film was directed by Joe Massot and starred Jack MacGowran, Jane Birkin, Richard Wattis and Irene Handl. It revolves around the story of a reclusive scientist who finds a hole in the wall of his flat through which he can observe his neighbours and the strange goings on next door.

The film is a snapshot of the counter-culture in London at its height in 1967 and has acquired a cult status.

George Harrison's soundtrack is arguably of more interest than the film itself; director, Massot, gave him free reign to do anything he liked musically and so the album contains tracks which are reflective of a number of musical positions. Rather than trying to force a combination of Western and Eastern music, Harrison cleverly juxtaposes compositions which stand firmly within one musical tradition with ones that stands on the outer edge of another, thus implying similarity and the understanding of the one in terms of the other.

There are also a smaller number of compositions which attempt to find a position between two musical traditions. This too has been thoughtfully handled by the choice of instrumentation, for example, the Mellotron (an electro-mechanic, polyphonic tape replay keyboard) was used, which avoided creating specific aesthetic or ornamental sounds that would be immediately identifiable with either musical tradition.

1. PROLOGUE



1.1 DISCOVERING RAGA



HIS MASTER'S VOICE
*Record lable from "Concerto For Sitar and Orchestra" - 1971 (*EMI ASD 2752)

I first heard Rāga (or Indian Classical music) when I was about 12 years old. I sort of 'discovered' it by accident going through my dad's record collection and coming across Ravi Shankar's Concerto for Sitār & Orchestra (1971) with André Previn conducting the London Symphony Orchestra. I can remember the record spinning with the EMI dog listening to "his master's voice" and the hiss and crackle of the LP which my dad had convinced me as a young boy was in fact the sound of people having their breakfast in the background as the recording was being done.

I only became really excited about the sitār and Indian classical music when I was 17 years old in Standard 9. This was a time of great musical discovery for me; I was playing in a band and composing music with a good friend of mine. I was playing the drums and the violin and starting to take the piano seriously again but most of all I started to listen to music; Frank Zappa, Captain Beefheart, Chick Corea, Miles Davis, John Coltrane, George Duke, Stanley Clarke, Al di Meola, John McClaughlin, Weather Report, Yellow Jackets, Billy Cobham and of course Ravi Shankar which soon opened the door to a wealth of musicians and musical styles that have come out of the Indian subcontinent.

It was a project for Art in Standard 9 that started my obsession with the sitār as an instrument. I had been, at the time that this particular project was announced, finishing off a sculpture, which was my chosen field of specialisation. This project required us to do a painting in the cubist style of Picasso or Braque of a particular instrument or selection thereof, and I immediately wanted to do a painting of a sitār in this style. This meant that I would have to

change my area of focus from sculpture to painting. Luckily my art teacher agreed to this change and so began my obsession with sitār. I would stare at the cover of Concerto for Sitār & Orchestra as I listened to it, wanting to understand how the sounds on this recording were produced. The album cover had a mirrored image of Ravi Shankar sitting with the most intriguing instrument I had ever seen .

The first movement of Concerto for Sitār & Orchestra, is Raga Khammaj. It starts off with the London Symphony Orchestra playing a rather overly dramatic introduction showing characteristic phrases of Raga Khamaj through different sections of the orchestra. The sound of the harp almost washes away the rather stiff Western instrumentation and is answered by the sympathetic strings of the sitār. Immediately the spirit of Raga Khammaj is brought to life by a richness of sound and subtlety of ornamentation together with such intense emotion, the likes of which no instrument has rendered before me other than Ravi Shankar's Sitār.

I set about doing a cubist-inspired painting of the sitār in the naive way that any music-obsessed 17-year-old might have done. I went to the Sandringham Library and got some images of the sitār and set about composing these into a painting. At the same time I developed a tuning scheme for the battered nylon-sting acoustic guitar that lay about in the music room that best reflected that of the sitār and laboriously tried to recreate the sounds of Raga Khamaj. The painting turned out well (by a Standard 9 standard), at which point my dad came home with the news of having located a sitār at a pawn shop in Northcliff. I jumped at the opportunity of owning the instrument which I so coveted, even though it was in a poor state of repair and the sound that it produced was questionable. I am now fully aware of the short-comings of my first sitār as it stands as a rather over-sized, dust-gathering ornament in my room.



Ravi Shankar, 1971 (photograph by David Farrell: EMI ASD 2752)



Sitar, W J Dewar (2003)

A F T E R S C H O O L

When the twelve-year school stint was over, I was faced with the decision of what I was going to do with my life. At the time, the decision seemed incredibly clear; I was passionately interested in music, and so it was music that I would pursue. My band had grown to include some more talented musicians and we were experimenting with different musical forms, most notably Rāga/Indian classical music and modal jazz .

I was so taken with the vigour of youthful enthusiasm, that I tried to play as many instruments as I could get my hands on. In addition to the piano and drums which I had played from an early age, and the violin and sitar which I started to play when I was in Standard 9, I tried my hand at the 'cello, tabla and sārangi .

It was also at this time that I got hold of Ravi Shankar's 1956 LP, *Three Rāgas*. The recording that I made of the album at that time is currently in the tape deck of my car. The music on that album had such a profound effect on me; it was the real thing. *Three Rāgas* made *Concerto for Sitar and Orchestra* seem pedestrian by comparison. The first Rāga on the album is Rāga Jog. It takes up one entire side of the record at a magnificent 28 minutes and 21 seconds, just about reaching the length limit of what could be commercially pressed and released for public listening, which was the case until the advent of the Compact Disk.

For me, Rāga Jog was a musical epiphany; it was like suddenly opening my eyes from the depths of a dark and blinkered dream to the realm of ultimate musical possibility. There was no doubt in my mind that I had to learn Indian classical music.

At the same time, I was investigating where and what music I would study. In South Africa, the possibilities are quite limited and it ultimately came down to two options; go the academic route (study Western classical music at a university) or the vocational route (study at some music college).

Studying music at a university seemed more appealing, but I didn't really want to study Western classical music, I wanted to learn the sitar and Indian classical music. In fact, any music form that had little or no Western influence interested me greatly. I began trying to teach myself the sitar by way of videos and tutorials that were available on the internet – I was quite surprised at the number available. I soon tired of this, as I was making no meaningful progress and was just becoming frustrated. I needed to find a teacher and a community of people with whom I could share my passion and pursue Indian music seriously.

This frustration, as well as a number of other factors, led to my total disillusionment with the music scene and establishment in South Africa. I quit the band, went to London for the rest of the year and came back with a shiny new sitar, ready to study architecture.

U N I V E R S I T Y

It was only when I got to university that I started to make connections with people involved in Indian classical music. I met someone in my first year architecture class who played tabla, and introduced me to someone who taught sitār at the Lenasia School of Music, where I have learned to play the sitar ever since.

Studying architecture has given me great insight into the spatial quality of music and the understanding of music has undoubtedly enriched my perception of architecture. My combined interest in both architecture and music has allowed me to recognise that the great gap in the South African music scene (the root of my frustration and disillusionment when attempting to pursue music as my chosen career path) is a spatial phenomenon.

The structural thinking of Indian classical music has also opened my eyes to the possible meeting of elements that are usually judged to be incommensurable by the epistemological referees, whoever they may be. This is the spirit in which I have chosen to tackle this issue, where the combined spatial thinking in both music and architecture is used to negotiate much broader cultural issues.

1.2 INDIAN CLASSICAL MUSIC OUTSIDE INDIA

INTRODUCTION

"I have to acknowledge that Indian music took me by surprise. I knew neither its nature nor its richness, but here, if anywhere, I found vindication of my conviction that India was the original source. The two scales of the West, major and minor, with the harmonic minor as variant, the half-dozen ancient Greek modes, were here submerged under modes and scales of inexhaustible variety."

Yehudi Menuhin in Clayton (1996: 8)

What follows is a discussion which serves to contextualise Indian classical music and its establishment outside the Indian sub-continent (India, Pakistan, Afghanistan and Bangladesh). The condition in Europe and the United States are outlined and contrasted with those in Africa and more specifically South Africa, in the case of the latter, using personal experience and insight. This serves to clearly demonstrate the gap that would take the architectural intervention as previously described.

The popularity of Indian classical music outside India most likely has to do with its open and flexible structure, allowing it to easily find commonality with a wide range of other musical forms and traditions. In this sense, it could be viewed as the 'great mediator'; a basis upon which cross cultural negotiation can happen.

INDIAN CLASSICAL MUSIC IN EUROPE & USA

There are a number of countries where Indian classical music has been able to establish itself along with the support base and teaching and learning structures needed for the music form to exist in a meaningful way. The establishment of Indian classical music in these countries is in some cases due to a large Indian community living in a particular country, and in these instances, the support base tends to be made up predominantly of Indians. In other cases it is based largely on genuine interest and appreciation of this music form by non-Indians; nowhere is this more evident than in the United States, which has the most number of institutions for learning Indian classical music outside of the Indian sub-continent. In the United Kingdom it would seem that the support base is made up almost evenly of Indians and non-Indians. This is because of the steady emigration of people from India and Pakistan after the countries gained independence from Britain as well as a fairly large interest from the native population.

Two of the foremost musicians of India, Ali Akbar Khan and Ravi Shankar have both established music schools in California, both of which serve as important elements in keeping the largest non-Indian support base actively involved and interested. Many respected Indian musicians have made the decision to live in the United States, particularly in the San Francisco area, as it is commonly felt amongst them, that they are given more respect and support there than in their native India. (Shankar 2007: 108)

INDIAN CLASSICAL MUSIC IN AFRICA

INDIAN CLASSICAL MUSIC DOES HAVE A PRESENCE IN AFRICA, BUT THIS IS A MERE SHADOW OF THE WAY IN WHICH IT HAS BEEN ESTABLISHED AND SUPPORTED IN THE USA AND EUROPE SINCE THE 1950S. THE SET OF CRITERIA USED TO RATE AFRICA IN TERMS OF HOW ESTABLISHED INDIAN CLASSICAL MUSIC IS IN A CERTAIN COUNTRY, HAD TO BE ADJUSTED ACCORDINGLY; THE HIGHEST SCORING AFRICAN COUNTRIES WOULD BE LOW SCORING IN THE USA AND EUROPE.

ESTABLISHMENT OF INDIAN CLASSICAL MUSIC

LEVEL 1 — SMALL MUSIC SCHOOLS EXIST; THERE ARE A FAIR NUMBER OF PRIVATE TEACHERS; REGULAR PERFORMANCES ARE GIVEN BY BOTH LOCAL AND VISITING MUSICIANS; THERE IS SOME LEVEL OF INTEGRATION ALONG WITH OTHER MUSICAL FORMS

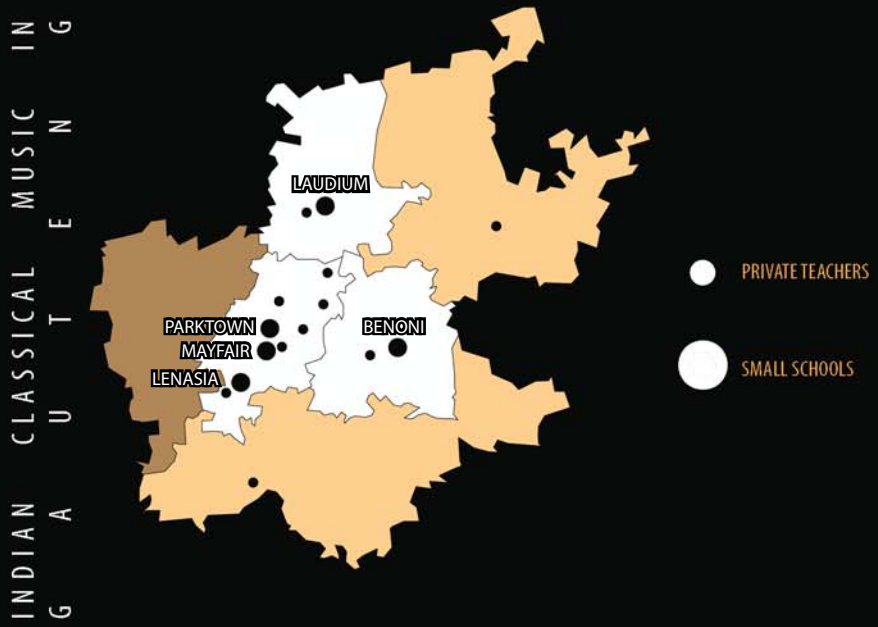
LEVEL 2 — A SMALL NUMBER OF PRIVATE TEACHERS; OCCASIONAL PERFORMANCES ARE GIVEN BY BOTH LOCAL AND VISITING MUSICIANS

LEVEL 3 — OCCASIONAL PERFORMANCES USUALLY AS PART OF A CULTURAL DELEGATION OR INTERNATIONAL MUSIC FESTIVAL

LEVEL 4 — PERFORMANCES ARE SELDOM GIVEN

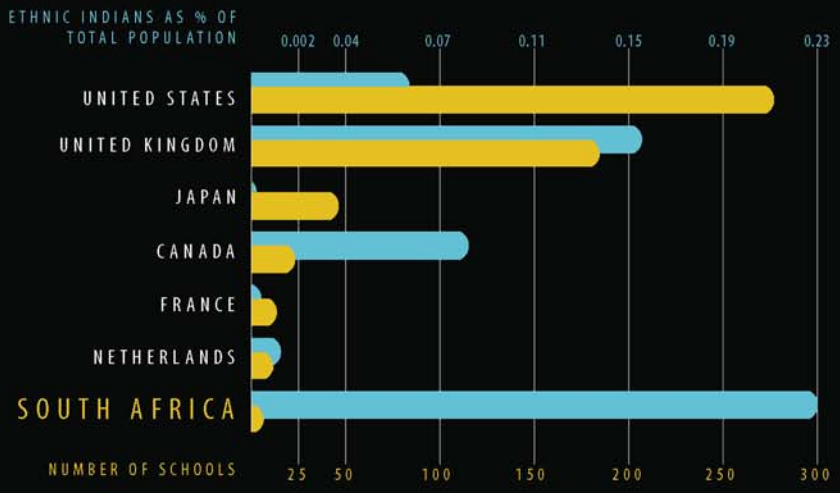
LEVEL 5 — NO NOTABLE AFFILIATION



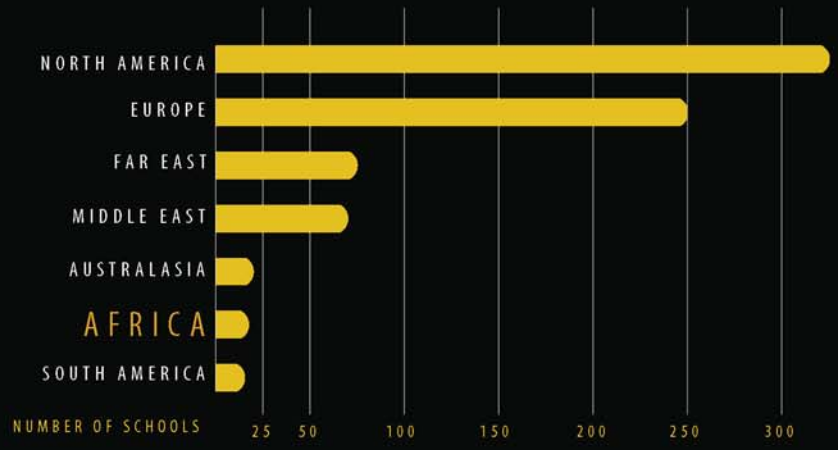




ESTABLISHMENT OF INDIAN CLASSICAL MUSIC OUTSIDE INDIA, PAKISTAN AND BANGLADESH BY COUNTRY



ESTABLISHMENT OF INDIAN CLASSICAL MUSIC OUTSIDE INDIA, PAKISTAN AND BANGLADESH BY CONTINENT



*the data represented in these graphs and maps are appoximations based on the information available at the time. Most commonly, listings of teachers and music schools available through the Indian Council For Cultural Relations have been used along with information accesible on the internet.

It strikes me as being odd that in Africa, a continent that is both geographically and culturally closer to India than America and Europe, that the magnificence of Indian classical music goes almost unrecognised. In all probability, it has to do with the common perception that Indian classical music is a culturally exclusive form of music that cannot exist outside of an Indian cultural context. On the contrary; there are a number of schools teaching Indian music at a tertiary level outside India, which are run and attended almost entirely by non-Indians.

What is most surprising in the case of South Africa, is that although there are a fair number of schools that teach Indian classical music, none of them offer the quality and level of training that are available in the United States and Europe for example. This is especially surprising when considering that the Indian community in South Africa is almost proportionately double that of the United Kingdom, yet there are roughly ten times as many teaching institutions there as there are in South Africa. This, I am convinced is the legacy of Apartheid, where Indian classical music remains culturally and spatially hidden, removed and disconnected from other forms of music present in South Africa. This is perhaps the result of a focus on issues that are deemed of greater importance when attempting to redress racial inequality entrenched by years of legislated separate development.

It is not as if the arts are being ignored in South Africa, there are both the political will and the funds (be they small) for their promotion. The Department of Arts and Culture spends billions of Rands each year in an attempt to fulfil their primary objective of *encourage[ing] nation-building and social cohesion through the arts*. The results are more often than not staggeringly ethnically exclusive, and do not promote the key aims of the Department of Arts and Culture.

In Johannesburg, Indian classical music keeps itself well hidden. If you look very hard for a number of years, you may see that it does indeed exist in its entirety. It's taken me six years of persistent inquiry to realise that all the ingredients for what I was in pursuit of, are in fact present in Johannesburg. There are great number of teachers, a number of small schools as well as regular performances of Indian classical music all within the greater Johannesburg region. When artists come from India, they play to sold-out auditoria in Johannesburg, Durban and Cape Town.

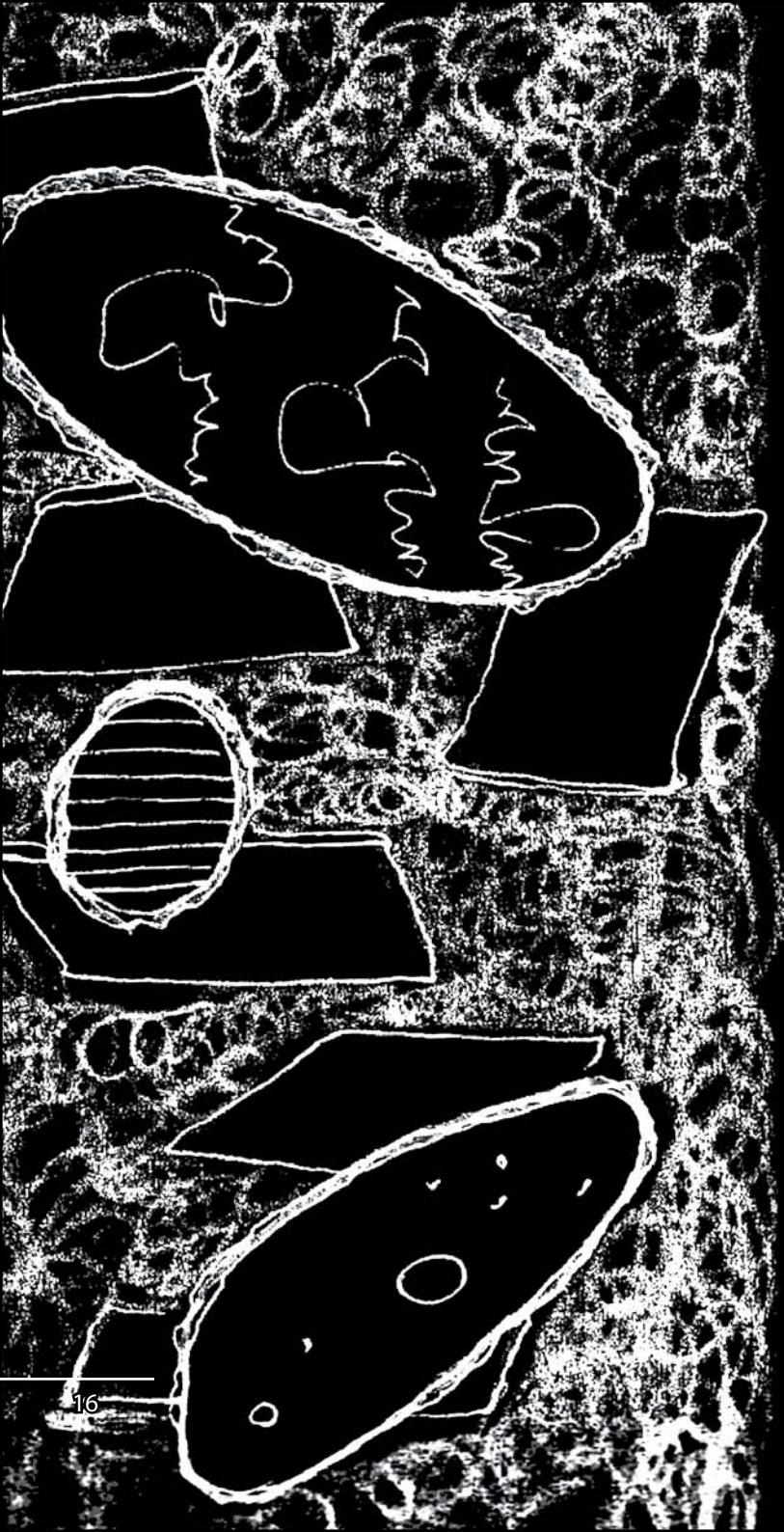
In Johannesburg, more so than in Cape Town and Durban, these ingredients are so elusive, so unknown and so disconnected from the sphere of the average man's daily existence, that anyone would be excused for thinking that they simply are not present.

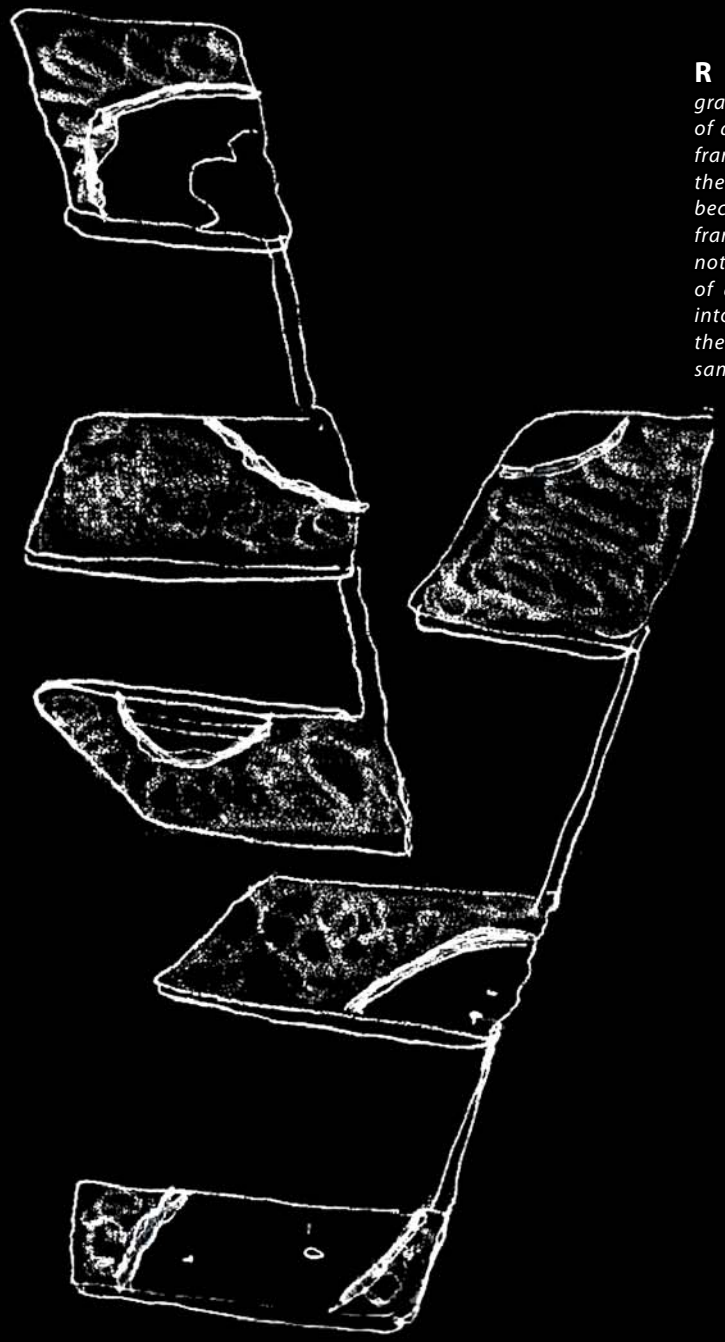
An Architectural intervention would do two things simultaneously; firstly, and most importantly, to use the inherent quality of Indian classical music as an indispensible tool for cross-cultural negotiation, and secondly, to promote the establishment of Indian classical music in Johannesburg and South Africa.

The inner-city suburb of Yeoville was chosen as an area that is particularly well-suited to cross-cultural negotiation, which is later explained in more detail.The strategy for establishing Indian classical and cross-over music engages with what Yeoville was, what Yeoville is now and with various musicians scattered around the greater Johannesburg region. This kind of centre for music would hopefully act as a catalyst for establishing Rockey/Raleigh street as an important strip for music in Johannesburg as well as the focus of creative development in South African music. The main theoretical underpinning that could negotiate this, follows in the essay *Moving Meaning.*



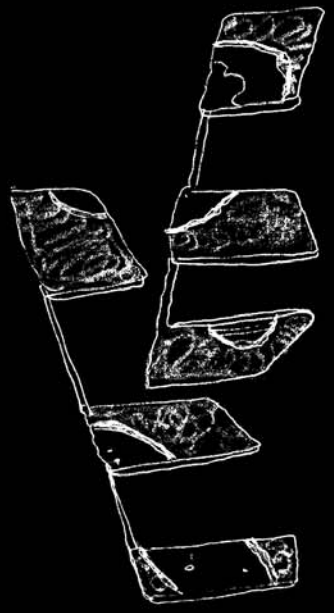
ROCKEY STREET 2011
Yeoville's vibrant high street





R E C O M B I N A T I O N

graphic showing the concept of the knowledge bases of a submissive culture, existing within the cultural framework of another dominant culture. As a result, the dominated culture becomes debased its richness becomes a mere motif in the dominant culturul framework. It would perhaps be most effective not to force one culture to have to exist in terms of another, but rather, to allow cultures to enter into a converstaion, where one is enhanced by the other, but still retain their difference. The same could be said for music and architecture.



2. MOVING MEANING





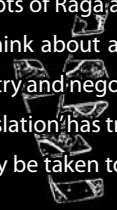


INTRODUCTION

Examining the relationship between music and architecture has been in our consciousness for thousands of years and is very much a work in progress. Central to this chapter is the way in which music has been understood in terms of architecture, and how architecture has been understood in terms of music, and it does so through the lens of Rāga, the central concept of Indian classical music.

Here it is the method of translation or negotiation that is crucial to understanding the way in which a relevant cross-cultural/cross-disciplinary space might be created in an urban context. This comes out of relatively recent developments in the West, which see people questioning boundaries (in many cases they are imagined) which surround cultures, disciplines, language, tradition, history etc. This questioning has seen a call for alternative approaches and concepts of translation which could most effectively be described as thirdspace: a space where a multiplicity of perspectives are strategically restructured to open new alternatives.

By examining the concepts of Rāga and thirdspace, it is hoped that their boundaries may be blurred, helping us to think about architecture and music differently. The Rāga/thirdspace thinking is then used to try and negotiate a meeting with architecture, beginning with a look at the way in which 'translation' has traditionally been approached and out of this, suggests a position or path that may be taken to add on to, or reformulate what has already been done in this field.





When reviewing the work that has been done on the relationship between music and architecture, one is struck by how inconclusive it may seem. Humankind's production of music and sound in a built environment perhaps talks of this relationship in its simplest form. As disciplines started to become more distinct and different from one another, people realised that the abstract ways in which they thought about music and space were still very much the same, but these divergent disciplines now spoke different languages.

These distinctly separated fields (along with differing cultural affiliations) now need to be translated, one into the other, in order to become mutually intelligible. Most attempts at 'translating' music into architecture, or architecture into music have often been rather stiff and unconvincing. This, I am convinced, is the result of two main contributing factors, firstly the method used to think of one in terms of the other (i.e. translation) and secondly, and perhaps most importantly, the imagined boundaries that we have put up around certain disciplines, or knowledge bases, (i.e. epistemology).

What translation does, in its traditional sense, is try to move meaning from one knowledge base to another as neatly and impersonally as possible so that no one need leave the comfort zone of their designated box. This stereotype I have just related talks of the translator as the invisible copier, producing a one-directional product, which is the translation. It is this kind of translation, with its invisible process that has characterised the way that the West has seen itself in relation to the world and the way in which it relates to the world. This was especially true of colonial times, when there was the added structural dimension of power. It was this power structure of polarities, of superior and inferior, West and East, us and them, white and black, that has had a profound skewing effect in cross-cultural translations of colonial times and has residual effects to this day. (Gomille & Steierstorpfer: 2008 et. al.)

Most notably in the last 50 years or so, the manmade divisions that have separated the cultures, disciplines, religions, regions and territories of the world have been radically reconfigured, shifted and sometimes totally destroyed. It is in light of this radical change that we live in state of diversity in most major urban centres, where multiple differences are continually having to be negotiated and re-negotiated in a different kind of perpetual, process-focused translation. It is a process of translation that is based in neither the abstract realms of the 'original' nor the 'copy', but in space, an everyday space that is central to all concepts that comprise human life, i.e.: "place, location, locality, landscape, environment, home, city, region, territory and geography". (Soja 1996:1)

In this third space, the role of the translator is that of the dynamic mediator, not the invisible copier. This 'thirdspace' like the one talked of by Edward Soja[1] and Homi Bhabha[2], could open up new combinatorial opportunities and innovate alternative approaches to negotiating the contact point of culture, music and architecture. The introduction of a cultural aspect to the usual two-way relationship between music and architecture, is something that comes out of looking at non-Western forms of music entering into dialogue with architecture.

This line of inquiry comes out of the need for a centre where teaching, learning, and research into Indian classical music can happen in Johannesburg, ultimately resulting in the establishment of a gharana, or stylist school of music, which would develop out of meaningful contact, negotiation and development alongside different musical forms of an African urban context, as has been discussed in the prevoius chapter. The rich music of the Indian sub-continent, which manifests most magnificently in Rāga, the central concept of Indian classical music, is a lens through which not many have looked when trying to discover what magic might come out of a musical/architectural reunion.

It is hoped that Rāga and thirdspace can be used as mutually-informing structural frameworks

1 Edward Soja is a postmodern political geographer and urban planner at UCL where he is Distinguished Professor of Urban Planning

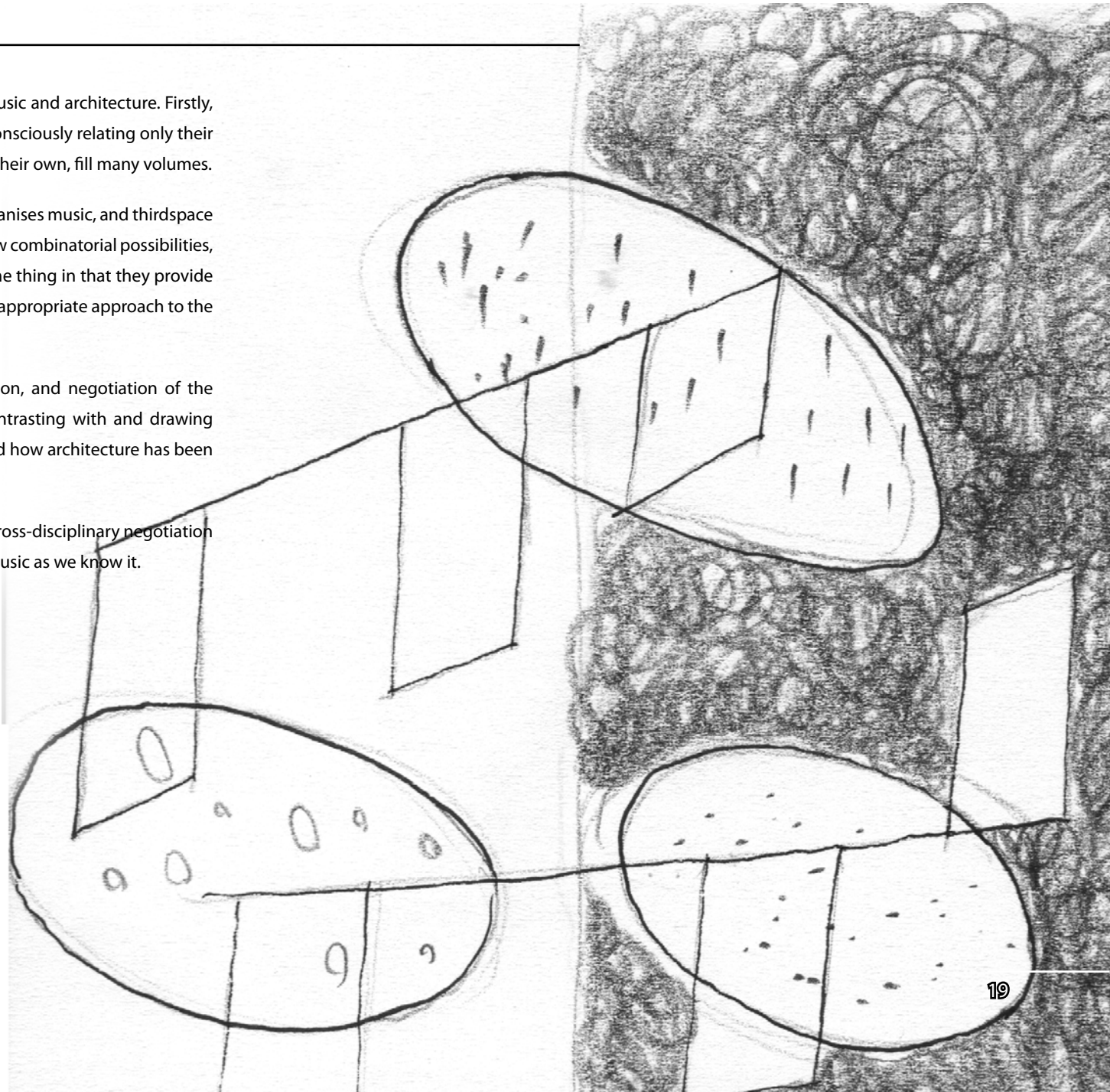
2 Homi Bhabha lectures in English and postcolonial Literary Theory at Sussex University in the United Kingdom

which allow a free and flexible intersection point for culture, music and architecture. Firstly, the two concepts of Rāga and thirdspace are outlined briefly, consciously relating only their main abstract ideas, rather than their specifics which could, on their own, fill many volumes.

It is then argued that if Rāga is the structural framework that organises music, and thirdspace the structural framework that organises, or rather, negotiates new combinatorial possibilities, then it could be said that these concepts do very much the same thing in that they provide a framework for process-focused translation, and so suggest an appropriate approach to the architectural problem as previously outlined.

The possibilities of the Rāga/thirdspace approach to translation, and negotiation of the frontiers of architecture and music are then set out, both contrasting with and drawing from how music has been understood in architectural terms and how architecture has been understood in musical terms.

It is out of this fluid, process-driven approach to cross-cultural/cross-disciplinary negotiation that a rich solution may come, that is neither architecture nor music as we know it.



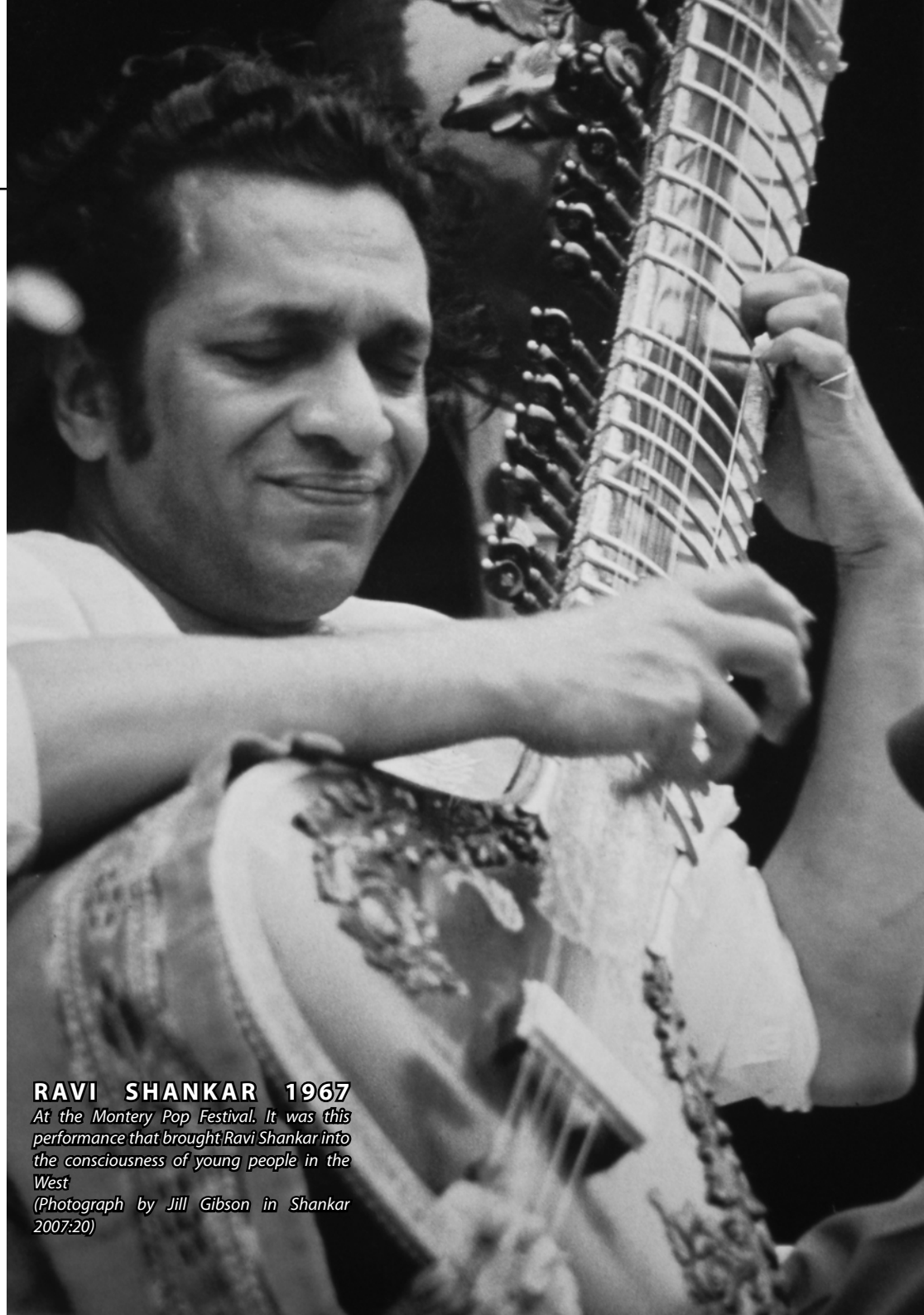
RECOMBINATION
graphic showing the strucutre of one culture superimposed upon that of another

R A G A

India is a country of extremes: diverse religions, ethnicity, geography and musical traditions (Wade 1979: 7). India's two greatest population groups claim origin from either invader Aryan (in the north) and indigenous Dravidian (in the south). It is along these cultural lines that there exist two related forms of classical music in India, namely the Hindustani (north) and Karnatik (south) traditions. Hindustani classical music, also referred to as North Indian, or just Indian classical music is arguably the more dynamic of the two musical traditions, as it developed in the northern third of the country which was subject to waves of invading forces[3]. The contact with Persian and Arabic music has enriched the musical traditions of the north which prevail in Afghanistan, Pakistan, the northern third of India and Bangladesh. (Wade 1979 et. al.)

From a Western perspective, when thinking of Indian classical music, one would probably think of Ravi Shankar, who almost single-handedly was responsible for the awareness of Indian classical music in the West, when he was 'discovered' by the hippies in the mid-1960s. Although there was a tremendous amount of positivity that came from the youth culture adopting aspects of Indian culture and music at that time, it also created many beliefs, or associations with Indian music that are not true. Many associate it with the 'trippy psychedelic sounds' to which you could drop some A, or smoke a zol and be transported to another astral plane. Although there are some elements of truth in this (it is believed from an Indian perspective that Rāga has the ability to transcend reality), the drug and hippie association has often given people the wrong idea about Rāga and often prevents it from being taken as a serious art form in its own right, on the same level as Western classical music.

3 From as early as 1000 AD, there have been a series of muslim invasions of North India, most notably by the Moghuls. These invading forces brought musical forms from the Arabic world and Persia, which merged with the existing musical forms in North India to form what is now known as the music of Hindustan, or North India.



RAVI SHANKAR 1967
At the Montery Pop Festival. It was this performance that brought Ravi Shankar into the consciousness of young people in the West
(Photograph by Jill Gibson in Shankar 2007:20)

Perhaps it would be wise, at the very start, to explain some of the basic differences between the music of the West and the East. By understanding what Indian music is not, it may be more easily understood what it is. In the West, music is not based only on a combination of rhythms and melody, but also on the highly developed elements that enrich music: harmony - the chordal, vertical structure of any piece of music, and counterpoint - the simultaneous sounding of two or more melodies (Shankar 2007 et. al.).

Shankar (2007: 26) describes Indian music as also being based on melody and rhythm, but it has no comparable system of harmony and counterpoint and instead, it is the melody that has been highly developed and refined to a very high degree, with an infinite variety of subtleties that are completely unknown in Western music. Another aspect of Indian music, or Rāga, is that it explores only one principal mood throughout, dwelling on it, expanding and elaborating, whereas Western music makes use of many moods, or tonal colours often creating much contrast within a single composition.

In brief, the Rāga should not be mistaken for a mode or a scale, although it has affinities with both of these. A Rāga is the precise melodic framework, established by tradition or born and inspired in the spirit of a master musician. A Rāga is made up of a selection of notes, never less than five, with a definite hierarchy defining for how long each note should be played and the order in which they should be played. A Rāga has a principal mood and time of day associated with it. The melodic structure is supported by an equally complex rhythmic structure, or tala, played in cyclical patterns. Most of a Raga performance is improvised within the given structure – often a musician and his rhythmic accompanist will have never rehearsed together before a performance.

The concept of Rāga is very elusive, much like that of thirdspace. Wim van der Meer's[4] book, "Hindustani Music in the Twentieth Century" (1980:3) starts out by making it clear that one should refrain from trying to define Rāga, stating that understanding Rāga is a process that grows slowly over time, during which it reveals itself more and more clearly. This introduction to Rāga is probably more appropriate than one would realise, but may be frustrating to a person from a Western academic background.

Ken Zuckerman[5] (1996: 3), in his paper, Indian Music and the West, talks of a childlike approach as being exactly what is necessary to enter the world of Indian music, or Rāga. Zuckerman describes his guru(teacher), Ustad Ali Akbar Khan[6], when teaching at one of his schools in either Switzerland or California, as having to constantly remind his students to let go of their 'Western' analytical, intellectual attitudes towards learning in favour of a more subtle state of listening and openness. Particularly during the moments of overwhelming complexity at the depth of the subject, he would remind his students to relax, stop asking questions and just listen and in this way the tendency to over-intellectualise was overcome – one of the greatest challenges to a Western student of Indian music (ibid.). It is this description of how to understand a Rāga that I feel would perhaps be more useful than describing in depth all the technical aspects of this rich musical form: that is the subject of another essay.

It is in the performance itself thatthe Rāga is created, which is always different from the way in which it had been played previously, and so, in this way the music is not predetermined or seen as an object, like a piece of music in the Western tradition. It is a process-driven form of music-making, held together by the structure of the Rāga, where the musician is the composer, performer and improviser.

4 Wim van der Meer teaches world music studies in the Department of Musicology at the University of Amsterdam. He did his Ph.D. in Indian classical music and underwent intensive training in Indian classical vocal music under the instruction of Gayan Guru Dilip Chandra Vedi

5 Ken Zuckerman (b. 1956 -) –an American sarod player and lutenist. He spent 36 years training under the Indian sarod master, Ustad Ali Akbar Khan, the son of one of India's most accomplished musicians, Ustad Allauddin Khan who also taught Ravi Shankar. Zuckerman learned the art of the sarod and Indian classical music at the Ali Akbar College of music in San Raphael, California and now heads a branch of the school in Basel Switzerland as well as giving regular performances around the world. (Zuckerman 2010 et. al.)

6 Ustad Ali Akbar Khan (1922 – 2009) – world renowned sarod player whose father taught him as well as Ravi Shankar. He was instrumental in bringing Indian classical music to the West and set up the Ali Akbar Khan School of Music in San Raphael, California in 1967 and later, another in Basel, Switzerland. These music schools are primarily aimed at teaching Indian classical music to non-Indians.

> *Thirdspace is an efficient invitation to enter a space of extraordinary openness, a place of critical exchange where the geographical imagination can be expanded to encompass a multiplicity of perspectives that have heretofore been considered by the epistemological referees to be incompatible, uncombinable. It is a space where the issues of race, class, and gender can be addressed simultaneously without privileging one over the other, where one can be Marxist and post-Marxist, materialist and idealist, structuralist and humanist, disciplined and trans-disciplinary at the same time.*
>
> Soja (1996: 5)

Thirdspace may be somewhat harder to define than Rāga, which has already been described as an elusive concept. Thirdspace may perhaps be better described in a set of broad ideas, the specifics of which may only be realised in the actual process of improvising a contact point between multiple cultures and disciplines.

The idea of the thirdspace comes out of what Soja (1996:3) describes as a "radical postmodernist perspective" that seeks to deconstruct and strategically reconstitute the separation in modern disciplinary fields and their related epistemologies. It encourages a 'both/and also' logic that encourages creative combinations and restructuring. This allows multiple viewpoints to exist at the same time.

It is important to note the spatial implications when talking of thirdspace. Soja (1996:2) describes it as an awareness of the spatiality of human existence or "the third, spatial dimension added to the way that scholars and citizens have thought about human life through historical and social qualities." Thirdspace is of course teeming with abstract notions and concepts, but the overriding idea is that it is in space where trans-disciplinary reconstitutions occur that negotiate the historical and social aspects as is mentioned above as well as a myriad of others.

It is suggested by Soja (1996: 1-6), that it may be in the imagination and open-mindedness coming from a trans-disciplinary approach - cutting across all modes of thought - that would allow us to meaningfully engage with issues that have great effects on us today, for example globalisation, poverty alleviation, geo-political disputes and in the case of this study, music and architecture.

Soja (1996: 26-31) attributes the roots of thirdspace to the thinking of Henri Lefebvre, a French sociologist and philosopher. Soja (ibid.) describes Lefebvre as always maintaining a peripheral consciousness, one that was coupled with a "geographical imagination shaped in the regions of resistance beyond the established centres of power...but at the same time it was a consciousness that could fully comprehend the inner-most working of a centre of power - an insider who purposefully chose to remain outside". Lefebvre described himself as an



HENRI LEFEBVRE
(Soja: 1996)



EDWARD SOJA
(Soja: 1996)



"Occitarian, that is to say peripheral – and global" (Lefebvre: 1975:60), as well as "knowing the lives of peasant communities among the mountain people, the shepherd...[but] Perisianism, with all its sophistications is no stranger to me" (Lefebvre 1975: 134)

It was Lefebvre (1980:143) who was of the opinion that there is always the Other, a third term that disrupts, disorders, and begins to reconstitute the conventional binary opposition into an-Other that comprehends, but is more than just the sum or two parts. This space was not located simply "in between" his bipolar worlds of centres and peripheries, or in some additive combination of them. It would have to exist in another space, the thirdspace "accessible only through his metaphilosphy[7]." (Soja 1996:33)

Some may see the idea of thirdspace as a wishy-washy condition, continually trying to wriggle out of aligning itself with anything, whatever it may be. They may see it as a continual fence-sitting position, where anything goes and nothing is resolved with a measurable outcome. I maintain that thirdspace has place for its critic and supporter, the conservative and the extremist. I feel that trying to search for, or quantify thirdspace is a quest for something that will never be found. I see it more as a tool for creativity, something that isn't definable; on the contrary, it is something that expands in the very act of thinking about it.

7 Metaphilosophy – commonly defined as the philosophy of philosophy,". In Greek, *meta-* carries the meaning of both something beyond or after (akin to the Latin *post-)* and also (related to the Latin *trans-)* a change of place or nature, i.e. to transport and/or transcend (as in the roots of the word *metaphor)*. Lefebvre uses this term which according to him does not discount philosophy, but comes from a place where the fullness of philosophy is appreciated along with its limitations. It questions what Lefebvre calls "the great illusion of philosophy ", which arises from the belief that it can completely transcend representations to reach a more complex and concrete Truth. Soja (1996: 33-34 et. al.)

POSITION I
RAGA / THIRDSPACE

If Rāga is the structural framework that organises music, and thirdspace the structural framework that organises, or rather, negotiates new combinatorial possibilities, then it could be said that these concepts do very much the same thing. That is that they offer some sort of framework which allows differing viewpoints to be combined in a specific way. In both cases these are ways that allow remarkable flexibility.

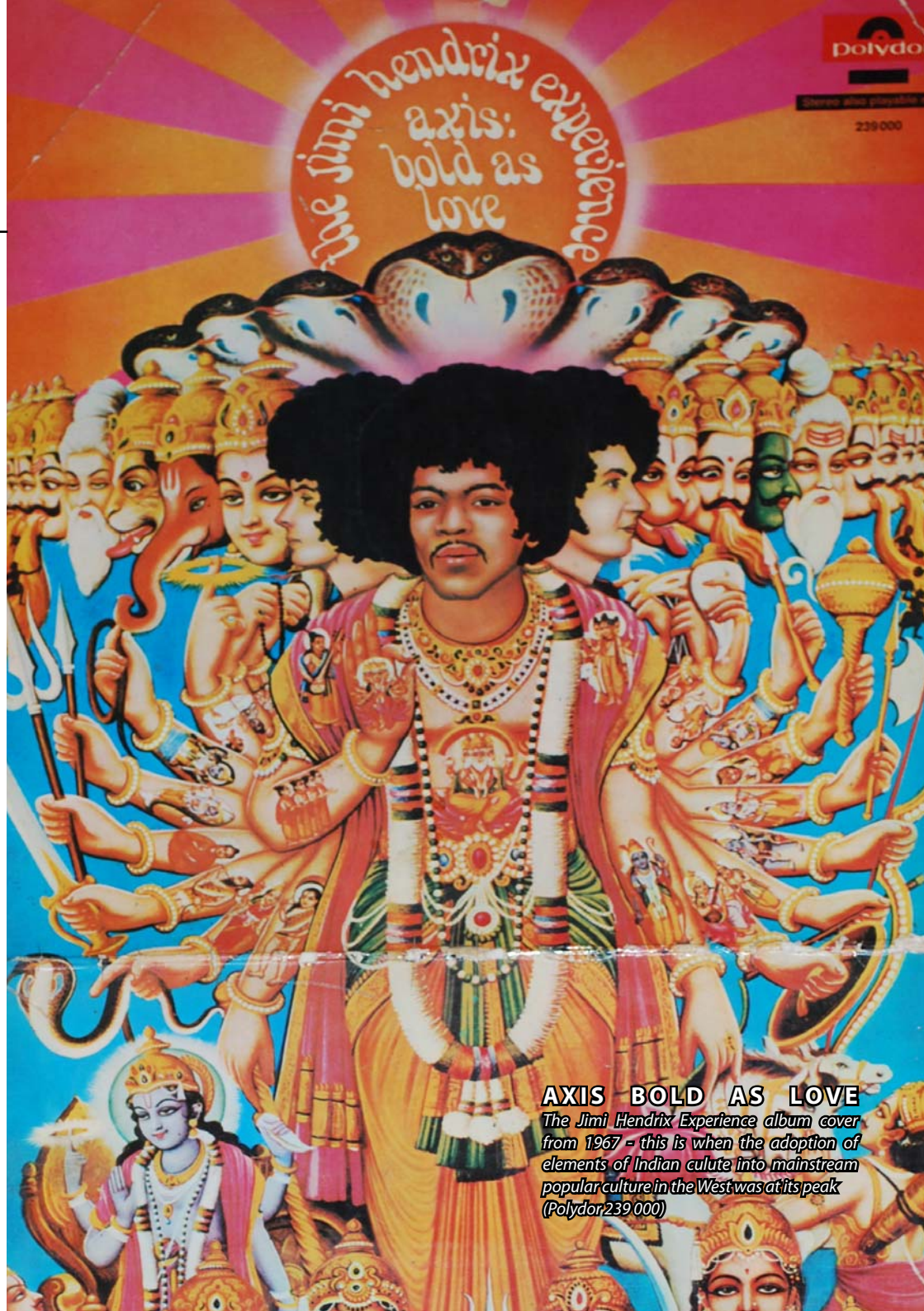
If it is the structure of Indian classical music which offers flexible openness to allow for meaningful, process-focused collaboration and improvisation, both within Indian music itself and across its malleable boundaries into other cultures of music, then it is this structure which may offer insight into the ways in which cultural, musical and architectural boundaries may be negotiated.

The dramatic change in thinking, which opened up so many possibilities for trans-cultural exchange in a different way, happened most notably in what Philip Glass[8] describes as a profound cultural sea change which took place in the mid-1960s.

> *[The 1960s was] a time when Western culture changed in the way that it saw itself in relation to the rest of the world, the way it saw itself in relation to its own history and also in terms of its own responsibilities, and when that door opened, Ravi [Shankar][9] was already there*
>
> Philip Glass 2001

8 Philip Glass (b.1938-), is an American composer considered by many as one of the most influential composers of the Twentieth Century. He is famous for bringing Western art music to the public and has composed music with Ravi Shankar

9 Here Ravi Shankar is referred to in his capacity as a cultural ambassador of Indian music and culture to the West. He had first played outside India in 1956 when he toured Europe, playing mainly for Indian ex-pats and Europeans who were acquainted with Indian music, usually through study of other aspects of Indian culture. (Shankar 2007)



AXIS BOLD AS LOVE
The Jimi Hendrix Experience album cover from 1967 - this is when the adoption of elements of Indian culute into mainstream popular culture in the West was at its peak (Polydor 239 000)

This was a time of "philosophical turmoil" (Wade 1979:8) which found the youth in the West looking East for inspiration. Before this time, there was the widespread belief in the West that there was one kind of sophisticated music in the world, and that was theirs (ibid.). It was George Harrison's groundbreaking experimentation with the sitār in 1965 and 1966[10] and his training under Ravi Shankar (Zuckerman 2002 et. al.) that is usually accredited with triggering an interest in Indian classical music and culture in the West. It is true that George Harrison, as a member of the phenomenally popular and influential band, The Beatles, is probably responsible for Indian music entering into the consciousness of many people in Europe and the United States, but the same response would not have been so, if for argument's sake, Harrison happened to pick up the Japanese koto instead of the sitār. This has to do with the predisposition of Indian classical music to be transported and specific characteristics which make it able to enter into equally meaningful musical collaboration with Western classical, folk, rock or jazz music[11], all aspects of which are present in Indian classical music and can be drawn upon and emphasised as need be.

Ken Zuckerman (2002) further supports the idea that it is because of the very open and flexible nature of Indian classical music, that it was able to flourish in the West (rather than musical forms of other cultures.) According to Zuckerman(2002), the following characteristics make Indian classical music so adaptable: it belongs to one of the oldest and richest living traditions of monophonic modal music which has had an influence on other notable forms of music, like Western art music, which has adopted some of its structural concepts; it has been continually exposed to other influences, giving it a wider appeal; it is comprised of a number of styles which continue to grow and change to this day and, although Indian music is what may be called a 'classical' tradition with a highly sophisticated theoretical base, at the same time it has connections with popular music and folk styles making it more accessible and less 'elite'.

Zuckerman (2002) maintains that it is "the built-in possibility for creative input by performers through improvisation and composition, even within the constraints of the traditional structures, [that] has kept Indian music in a continual state of renewal and readiness to adjust to changes in tastes and society [and that] this has also helped it to extend beyond the narrow borders of social classes and geographical borders."

Another reason that Indian classical music may "extend beyond the narrow borders of social classes and geographical borders" is that it is not linked to specific religious or liturgical functions. Clayton (1996:6) contests the structuralist position that certain underlying cultural patterns are reflected in music sounds, which he describes as an argument of attractive coherent simplicity. Clayton maintains that 'Indian' thought cannot be attributed to ancient Hindu doctrine, when "not only many Indians are Muslim, Sikh, Christian, or atheist, but the very nature of Hindu belief and practice has changed markedly since those doctrines were first expressed" (Clayton 1996:6). Although music that is produced can be consciously created to reflect the abstract ideas of philosophical thoughts or theories of a given culture at a given time, they cannot be the determinate of a musical structure. (ibid. et al).This is because cultural symbolism can never be absolute, meaning that the structure of a piece of music, let alone the meaning, can never be fixed since it inevitably depends on interpretation (conscious or unconscious) of the listener. If cultural patterns are reflected in the music in a meaningful way, then they must be perceived by the listener, who perceives them partly because of a predisposition to do so. (Ibid. et al)

10 George Harrison (1943-1997) is said to have first become interested in the *sitār* and Indian classical music on the set of the Beatles movie, *Help!,* in 1965. There was an Indian band on the set of the movie, which also played much of the music for the film, some of which appears on the B-side of the US release of the motion picture soundtrack in 1965. These tracks featuring the Indian musicians were not included in the UK release, which included all Commonwealth countries. (Guiliano et. al. 1997)

11 Indian music in the 1960s enjoyed the attention of many Western genres of music. The first and most famous use of sitār in Western pop music was in Lennon/McCartney's folksy *Norwegian Wood* (1965) as well by The Rolling Stones and Traffic. Jazz musicians, most notably, John Coltrane, were very interested by Indian classical music, especially the improvisation within a modal structure. Coltrane met with Shankar and was supposed to have taken instruction in Indian music, but unfortunately died before the lessons commenced. Ravi Shankar also pioneered the meeting of Western and Indian classical music forms in his collaborations with violinist Yehudi Menuhin, resulting in the acclaimed *West Meets East* album series. Shankar has also composed two concertos for *sitār* and Western orchestra, conducted by André Previn and Zubin Mehta respectively. (Shankar 2007, et. al.)

In light of academic thinking about translation in practice, as discussed by Gomille & Steierstorpfer (2008) which is described as a performative process, it would follow that the performance of Rāga is a metaphor which can capture the spirit of thirdspace.

Clayton (2000: 4), when describing the performance of Rāga, stresses that at every moment the musicians are engaged in the act of music-making, where they are constantly interpreting and interacting amongst themselves as well as with the listeners who too play an active role in interpreting structure and meaning.

The aim is to use thirdspace and Rāga as a structural framework to reconstitute the relationships between music, culture and architecture. The structural framework of Rāga, allows for a real-time creative process to occur, call it improvisation if you like, that allows an ever-shifting interpretation and re-interpretation. It could be argued that this is the very same as thirdspace, which talks in broader terms, often on a geographic scale. Here Rāga will be seen as the specific and thirdspace as the general.

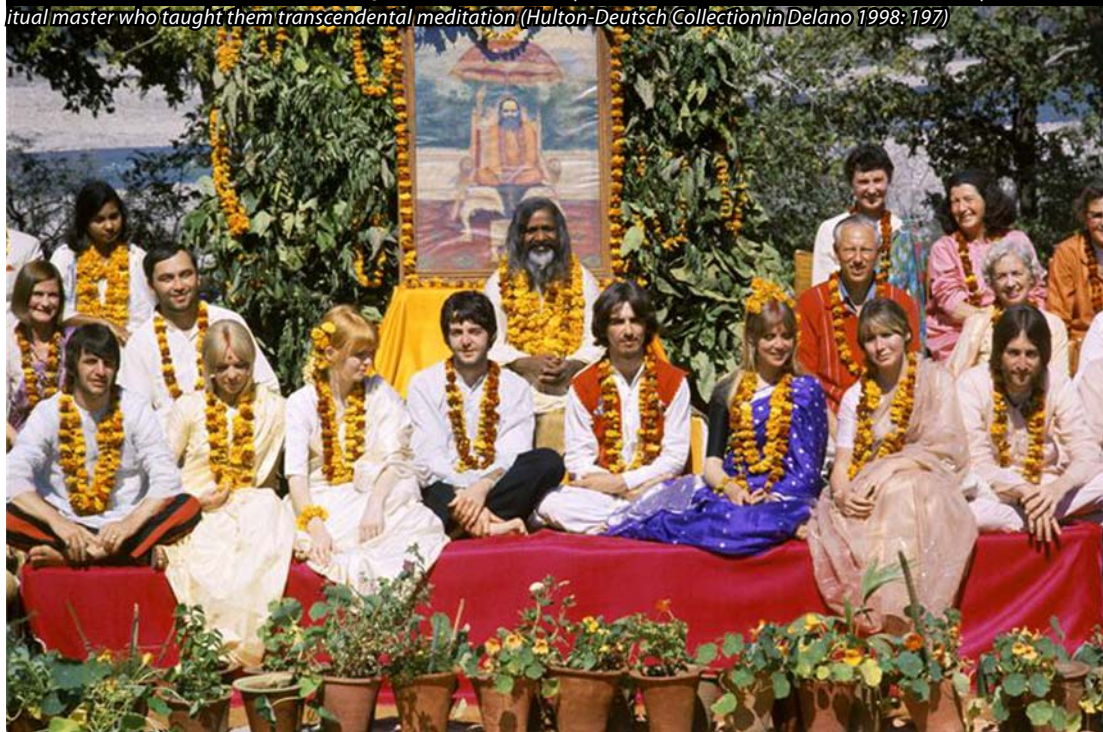
What is quite remarkable is that Soja's description of thirdspace below, could equally describe the effect of Rāga in performance:

> *Thirdspace (Rāga) is a purposefully tentative and flexible term that attempts to capture what is actually a constantly shifting and changing milieu of ideas, events, appearances and meanings Soja (1996:2)*



WEST LEARNING FROM EAST, *George Harrison learning sitar in Bombay in 1967 (Deliberate Alchemy Archives in Giuliano 1997:143)*

WITH THE MAHARISHI, *The Beatles and their partners in Rishikesh in 1967 seated with the spiritual master who taught them transcendental meditation (Hulton-Deutsch Collection in Delano 1998: 197)*

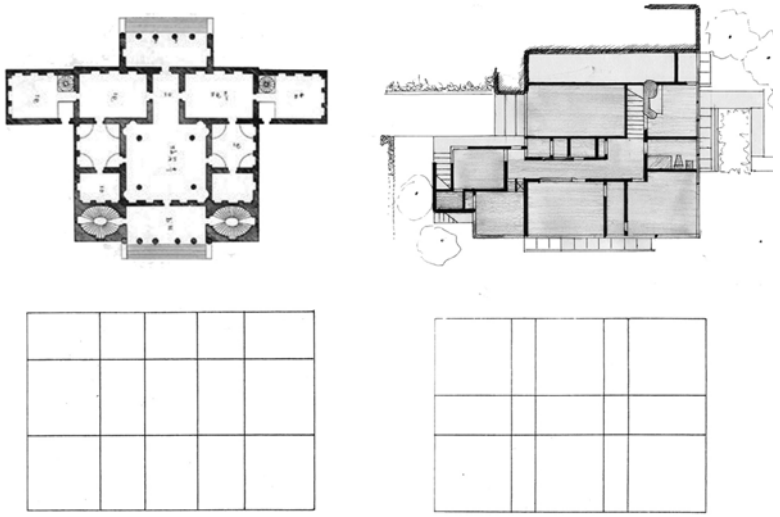


POSITION II
RAGA/THIRDSPACE ARCHITECTURE

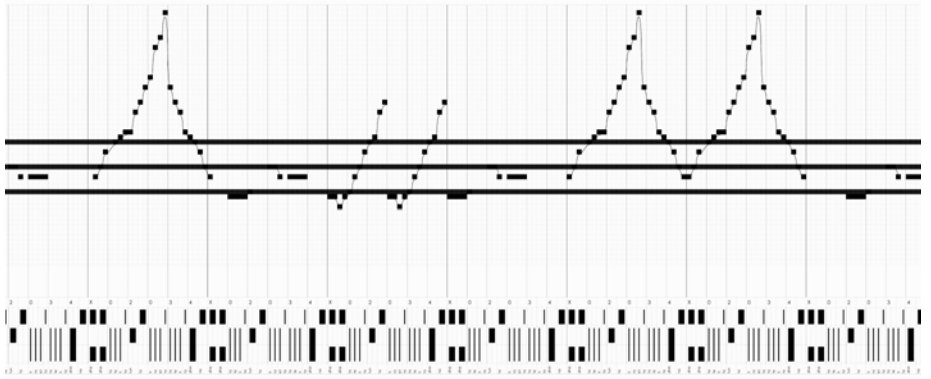
The inconclusive work that has been done in the field of musical/architectural translation, has more often than not had to do with the emphasis that has been placed on the translation of music into architecture as a one-way, product-focused process - one of an almost scientific kind. This would invariably involve the extraction of what are perceived as the combinable aspects of music with architecture, usually on a mathematical basis, which are then converted into architecture through a laborious process of interpolation, resulting in an architectural product that could just have easily been derived from something else. Here the process of translation is an invisible one. It is a process that lives a short and private life, buried in the architect's scribbles or even worse, on the hard drive of a computer, soon to be sucked into Information Technology's black hole along with all the world's lost computational data.

There are, according to Al Masmaa (2010), five ways in which music has been related or translated into architecture. This is not necessarily a hard and fast rule as methods may use a combination thereof. The most recognisable, and what Al Masmaa (2010) refers to as 'architecture as a series of harmonic spaces', developed in the Renaissance, when, according to Meuke and Zack (2007:254) architecture and music began to have a more formal relationship, and where numbers, rather than acoustics had become the new focus of the relationship. Leon Battista Alberti(1404-1472), an Italian author, artist, architect and priest, wrote that "music is geometry translated into sound, and that in music the very same harmonies are audible which inform the geometry of the building" (Alberti paraphrased by Wittkower, 1973:9). This shows that there is a clear separation between the structures of architecture and music, and although the listener may be able to hear the harmonies that are used to inform the architecture of a building, there is very little meaningful connectivity between music and its architectural space. Furthermore, this kind of thinking excludes forms of music for which harmony, as it is used in the West, is merely incidental, i.e. almost all non-Western music.

This Renaissance method of deriving architectural proportions from music by relying heavily



HARMONIC PROPORTIONING *as used in Palladio's Villa Cornato on the left and Rudolph Schindler's How House on the right. (Image after March and Sheine 1993:144) Detailed analysis from page 64*



MUSICAL ANALYSIS *of Raga Marwa, showing melody on the top and rhythm on the bottom. Detailed analysis from page 66*

on mathematics, especially the Fibonacci number series and the golden section, caused music to lose its connection with material, which resulted in, as Meuke and Zack (2007:255) point out, architecture where the focus was shifted away from how the structure might actually sound. This is in contrast to the approach of 'instrument as architecture', where the musical instrument is looked at as inspiration for architecture that is concerned with the quality of sound (Al Masmaa 2010). Here the instrument is seen as an architectural construction from which ideas about materials, enclosure and mechanics for a building might be gleaned. There is of course a relationship between the acoustic properties of a space and the type of music that would be played in it.

Stephen J Waller, an archaeologist, artist and archae-acoustic researcher argues that Palaeolithic cave-art in places like Lascaux in France, was the result of particular acoustic and cultural conditions. Waller, according to Meuke and Zack (2007:253), suggests that Palaeolithic stone-tool makers, creating percussive sounds as part of their work, caused an echo of what would sound like galloping animals emanating from different parts of the caves where the animals were not visible. In these places the Palaeolithic artists would paint what could be heard, but were invisible (ibid.). This Palaeolithic example of the influence that the acoustic properties of a space over the way that sounds are produced and perceived is evident in the acoustic treatment of performance venues to this day. This mainly has to do with the reverberation times[12] that are required in different styles of music.

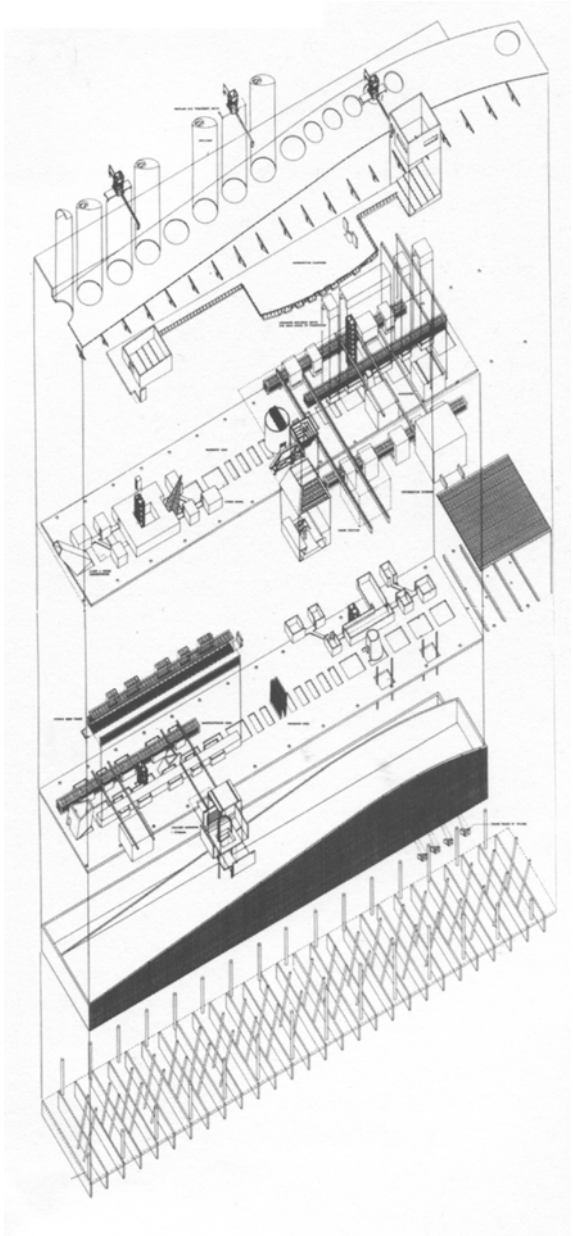
Al Masmaa (2010) further lists the two different ways in which music may be used as an inspiration for architecture. Firstly, a method where certain sensations and associations brought about by certain visual and aural stimuli are mapped against each other in an effort to derive architectural form. This is related to a phenomenon called synaesthesia[13], or what Clayton (200:196) describes as extra-musical effects in Indian classical music; secondly, there is a method of being able to 'translate' music in to architecture by a process of deconstruction and reinterpretation used to understand the otherwise hidden abstract qualities possessed in music in order to apply it to architecture. According to Al Masmaa (2010), this translation takes the form of an analysis and a form of algorithm, or equation, is used for the translation.

What has so far been described are methods of relation either of architecture to music, or music to architecture which is a product-driven process that relates one form to another in a single direction instead of as a position between the two. Elizabeth Martin, who has been a leading exponent in the study of the relationship between architecture and music, attempts to make translation more process-focused. In her paper entitled *y – Condition*, (Martin 1994: 16) she talks of a middle position between architecture and music, which exists as a definable, thin and pliable membrane through which meaning can pass. She further describes this membrane as having the same transitional function as a semi-tone, connecting two musical notes, or the sound heard during articulation linking two phonemically contiguous sounds, like the 'y'-sound often heard between the 'i' and 'e' in the word 'quiet'. Martin uses a mixed methodology in deriving a built form from musical score, which points to a more integrated system, but does much of this in a very one-directional process, i.e., taking notional graphic representations from music and converting this into architecture.

Martin shows the beginnings of a kind of thinking, the kind that is present in the thinking of thirdspace, which comes out of what Soja (1996:3) describes as a "radical postmodernist perspective" that seeks to deconstruct and strategically reconstitute the separation in modern disciplinary fields and their related epistemologies. It encourages a 'both/and also' logic that encourages creative combinations and restructuring.

12 Reverberation time is the length for which sound can be perceived in a particular venue after the sound source ceases. More simply put, it is how quickly an echo may fade away in a particular space. Often, the type of music(structure, complexity and whether or not the music uses harmony or not) being produced in a particular space has a direct connection to the reverberation time, or acoustic properties thereof.

13 Synaesthesia is the crossing of the five senses of perception and was quite common in the Romantic period. Artists and literary scholars of the time frequently reported tasting colours, hearing textures and feeling shadows. Some attribute the rise of synaesthesia to the prevalence of drugs, especially during the 1960s and 1970s, while others view it as a force of creativity. (Meuke and Zack, 2007: 162)



BUILDING DERIVED FROM MUSIC *a project by Elizabeth Martin showing the results of her methodology. (Martin 1994:25)*

R E S O L V E

The kind of approach when trying to negotiate the interface between culture, music and architecture should be one where there is the opportunity for multiplicity to exist within a flexible and permeable spatial membrane. The very notion of there being a position between architecture and music, or between notes, or between the letters in a word, or for that matter, the notion of being in-between, implies that there is always some sort of abstract structure in place. It will inevitably be a type of flexible structure that could, through the thinking of thirdspace and Rāga further broaden this field.

It is my feeling that the current methods that have been used for translating music into architecture are comparable to the kind of rudimentary exercises that are done by a student of music as a basis for trying to understand something much larger. These exercises are very important, as are they are in the disciplines of architecture and music, for acquiring different kinds of skills that will eventually form the basis upon which design or composition is done. It is my view that architecture/music, as opposed to being seen as separate disciplines, is a developing field of study that may blossom into its full potential as we break down the barriers that have for too long separated cultures and disciplines in the same improvisatory spirit of Raga.

Perhaps an intervention of this kind could potentially create the kind of trans-cultural epiphany that was responsible for the sea-change that happened in the 1960s; a cultural re-awakening in Johannesburg where all the ingredients for a leap in the direction of dramatic shift in culture are threatening to be baked into some concoction, be it good or bad. There is an urgency for positive negotiation of cultural difference on a new dynamic platform that is the arbiter for a culture full of and free of binirisms, of the ambidextrous resident alien and of the insider who invariably chooses to remain out.

Indeed it could be this fluid, process-driven approach to cross-cultural/cross-disciplinary negotiation out of which may come a rich solution that is neither architecture nor music as we know it.

TEACHING INDIAN CLASSICAL MUSIC - *stills from from the film showing a music lesson intructed by Ravi Shankar in progress with his senior students at his music school in California. (Ravi Shankar: In Portrain, 2002: BBC, Opus Arte)*

TEACHING INDIAN CLASSICAL MUSIC - *stills from from the film showing a music lesson intructed by Amjad Ali Khan at his music school in New Delhi. (Raga of the Kings, 1988: Navras)*

3.PROGRAMME

The programme for the Yeoville Music Centre is primarily based on a trans-disciplinary/trans-cultural negotiation. It is conceptualised as comprising of three main components, the most important of which aknowledges the high street (Rockey/Raleigh) and focuses on interacting with the life on the street, hinging around a small, flexible performance area. The music school component is private and uses shared functions such as the library/resource centre and main auditorium as a buffer zone. Lastly, a retail component, in the way of rentable shops ties the music centre into the fabric of the high street.

Two examples of purpose built buildings for music are examined, and then, along with ideas gained from the Yeoville typology and the teaching of Indian music discussed in Chapter 2: *Moving Meaning,* are reformulated into a suitable spatial programme.

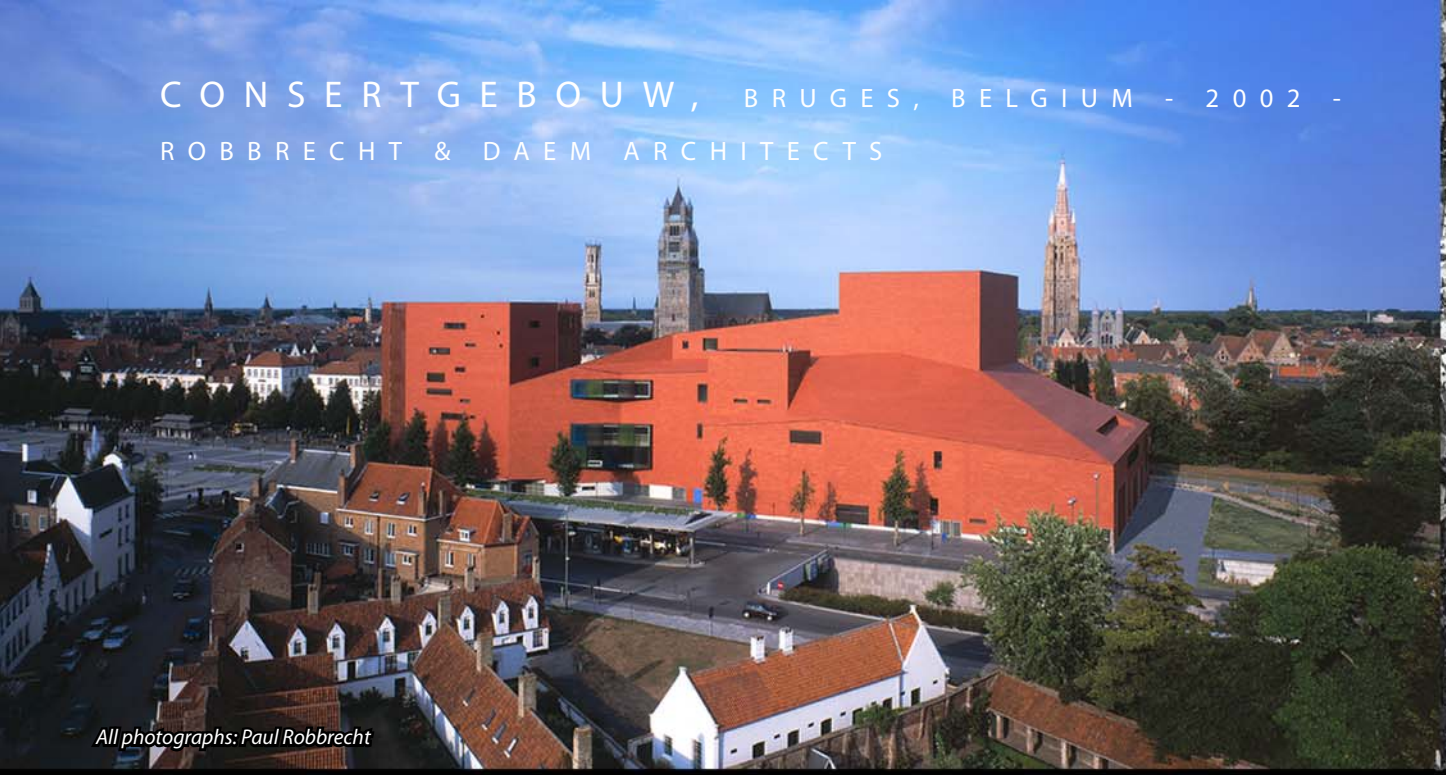
Drawing upon the structural thinking of both Rāga and thirdspace, it follows that the programmatic functions should be different and similar enough to allow for a state of perpetual thirding, i.e. new combinations of each other that are neither one nor the other, that repose and then recombine.

The leading line of theoretical thought lays out a set of programmatic needs relating to the establishment of a gharana, or stylistic school based on Indian classical music which would develop out of meaningful contact, negotiation and development alongside different musical forms in an African urban context.

The principal aim is to provide architectural catalysts that encourage the emergence of new and rich musical forms by strategically recombining the potential musical ingredients that are already present in the city of Johannesburg.

CONSERTGEBOUW, BRUGES, BELGIUM - 2002 -

ROBBRECHT & DAEM ARCHITECTS



All photographs: Paul Robbrecht

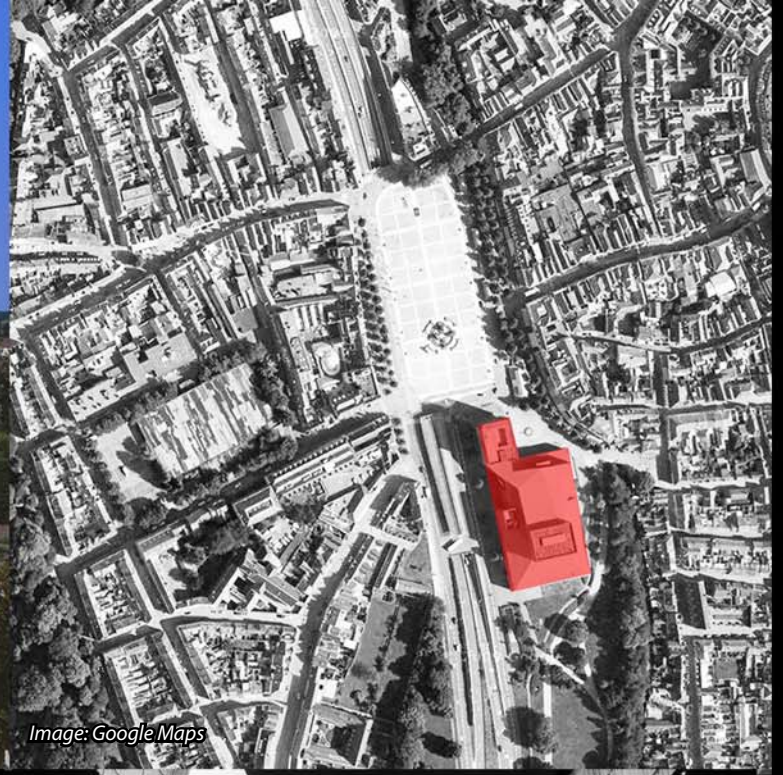


Image: Google Maps

The development of Concertgebouw came out of the need for a music venue which could form a modern link to music of the Middle Ages that would stand in the historical centre of Bruges where there are no other contemporary buildings. Bruges has had a long standing tradition of music festivals that stretch back to the modal music of the Middle Ages, before the development of polyphonic music in the west, which is the basis of western classical music as we know it today.

This is of particular relevance and interest to the programmatic development of a music centre that would primarily be based on modal music forms that require different acoustic properties.
Central to the concept of the Concert Hall, are the two ways in which the public may meet to experience a concert and so there are two performance venues; the chamber music room and the main concert hall, both of which are marked by two towers which dominate the exterior form of the building. A foyer on different levels connects the two performance venues.

The Concertgebouw is an example of a building which is entirely dedicated to the performance of music. This is shown clearly in its simple programme.



CONSERVATORIUM VAN AMSTERDAM, NETHERLANDS - 2008 -

FRITS VAN DONGEN

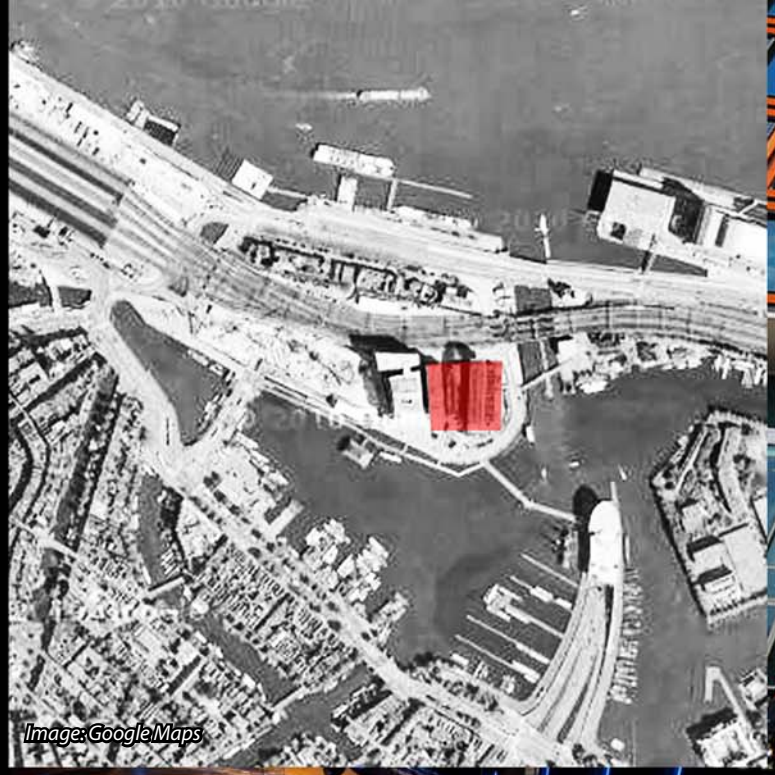


Image: Google Maps







Since 2008, the Conservatorium van Amsterdam has had its home in a new building at the Oosterdokseiland, near Amsterdam Central Station. The new building is centrally located in a cultural area, including the 'Muziekgebouw' with three concert halls for classical music and jazz, and the public library. Other faculties of the Amsterdamse Hogeschool voor de Kunsten (Amsterdam School of the Arts) are within walking distance.

This new complex is designed and equipped to current standards. Students can organise solo or ensemble concerts, create interesting projects with other music students or students from other art disciplines. They also make their own posters and flyers, sell tickets, or record their concerts in one of the concert halls and broadcast them on the internet radio at the school's website.

The design, is based on the 'Engawa model', the Japanese way of building, where the corridors are situated next to the outer walls of the building and the concert halls, classrooms and study rooms, within. Large windows in the front transmit sufficient daylight into the rooms. This building method is intended to enable students to study without being disturbed, while corridors keep noises out.

The building has four performance venues; Bernard Haitinkzaal, a large hall with 450 seats; Amsterdam Blue Note, a hall for jazz and pop concerts, which seats 200; Sweelinckzaal, a recital hall with 120 seats and Theaterzaal, which seats 50.

PLACES FOR MUSIC PERFORMANCE
KEY COMPONENTS



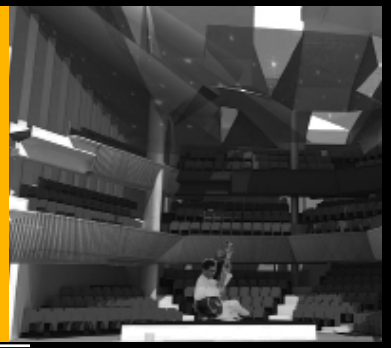
STREET / CLUB PERFORMANCE

Music performance that engages directly with the street edge, creates an interesting situation that presents a totally different kind of music to people who would never ordinarily be exposed to it. This component is of particular relevance to the context that this new centre for music finds itself, drawing on the energy and the memory of an alternative music scene that was once established along the high street. Most importantly, a performance venue like this would demonstrate a remarkable flexibility, being able to support anything from an annual street party to an intimate club, and everything in-between.



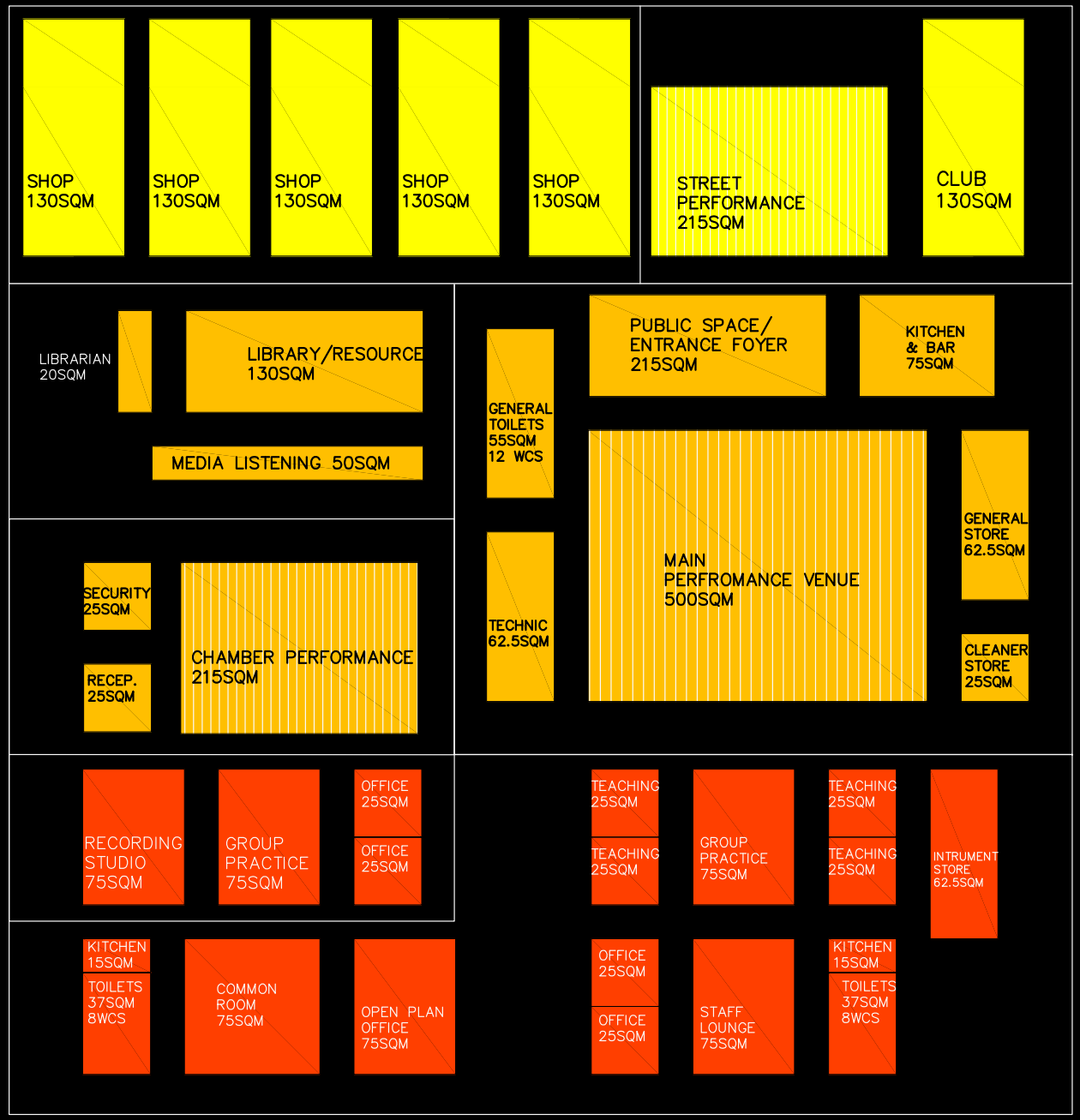
CHAMBER PERFORMANCE

This kind of performance venue allows for an intimate experience of the music being performed and it usually seats between 50 and 70 people. This discrete music performance venue would be directly linked to the music school, allowing it to double up as an ensemble practice venue. The scale of this type of venue, similar to those found at the Conservatorium van Amsterdam and the Concertgebouw in Bruges supports the type of music performance where the audience is very much engaged in the process of music making, and would be most suited to performances of Indian classical music, jazz, cross-over music and indeed any music form with an academic background.



AUDITORIUM PERFORMANCE

This type of venue is intended for performances when there is a much larger audience. It differs from the symphony orchestra-type performance venue in that it is a lot more compact which allows the audience to engage in the specifics of a performance, for example, facial expression. It would also be flexible enough to allow other types of performance, i.e., drama or dance if need be.



interactive public component

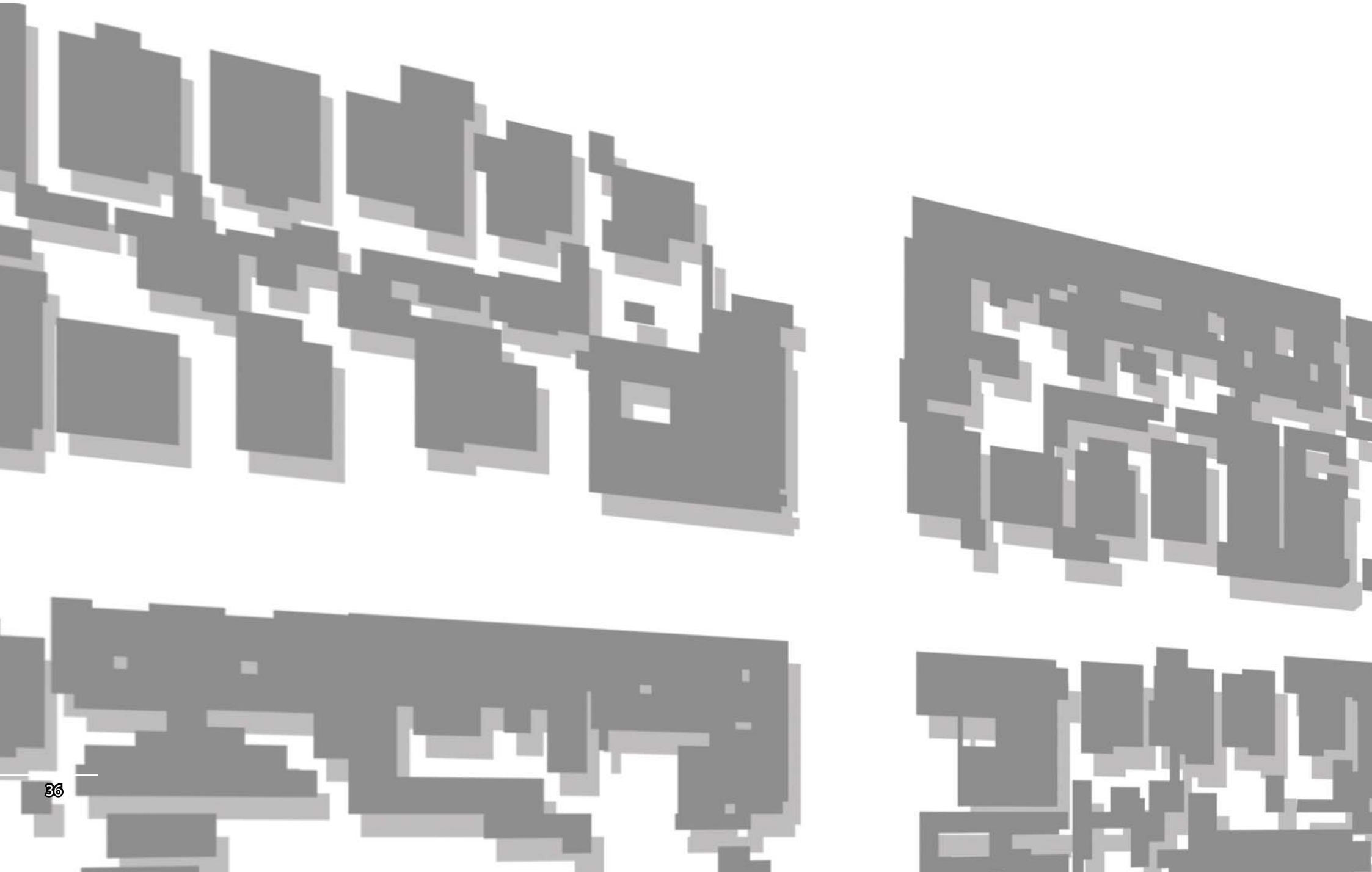
entrance foyer
library/research centre
performance space
cafe/club

teaching component

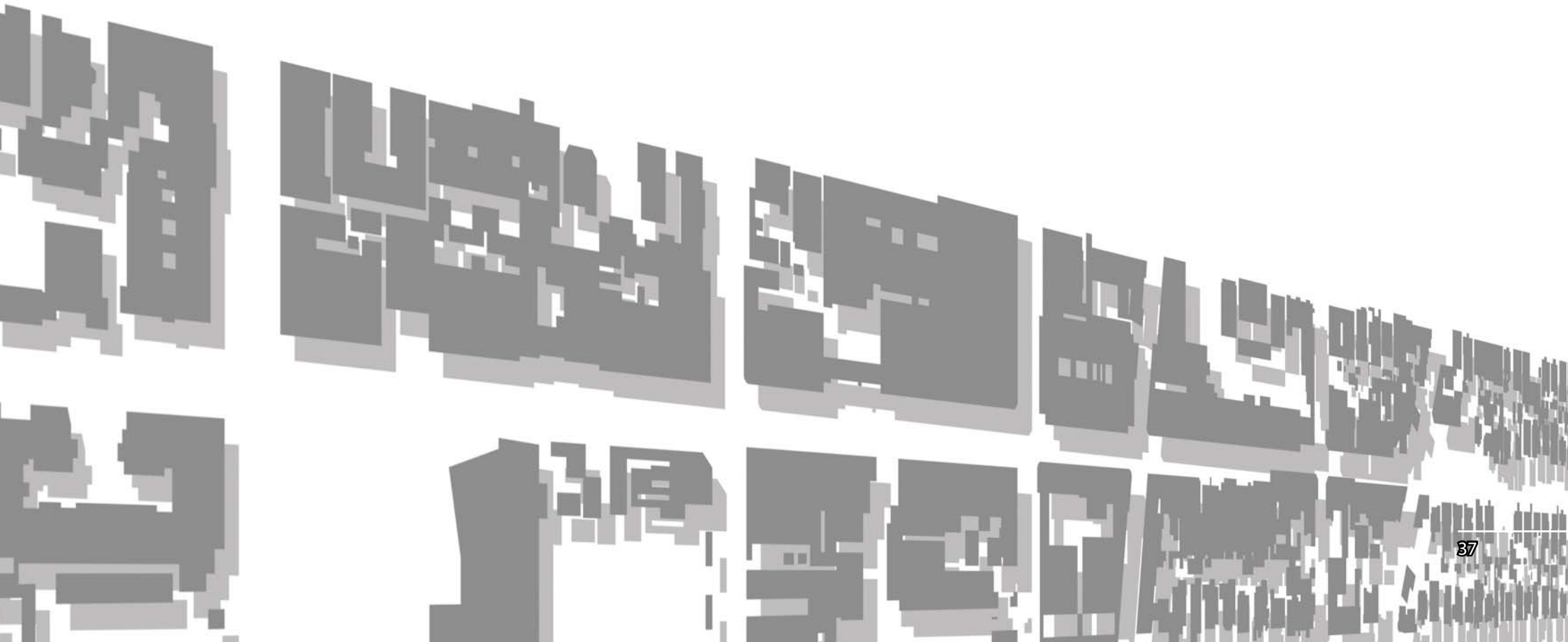
large & small teaching venues
recording studio
practice rooms

rentable component

shops and street trade

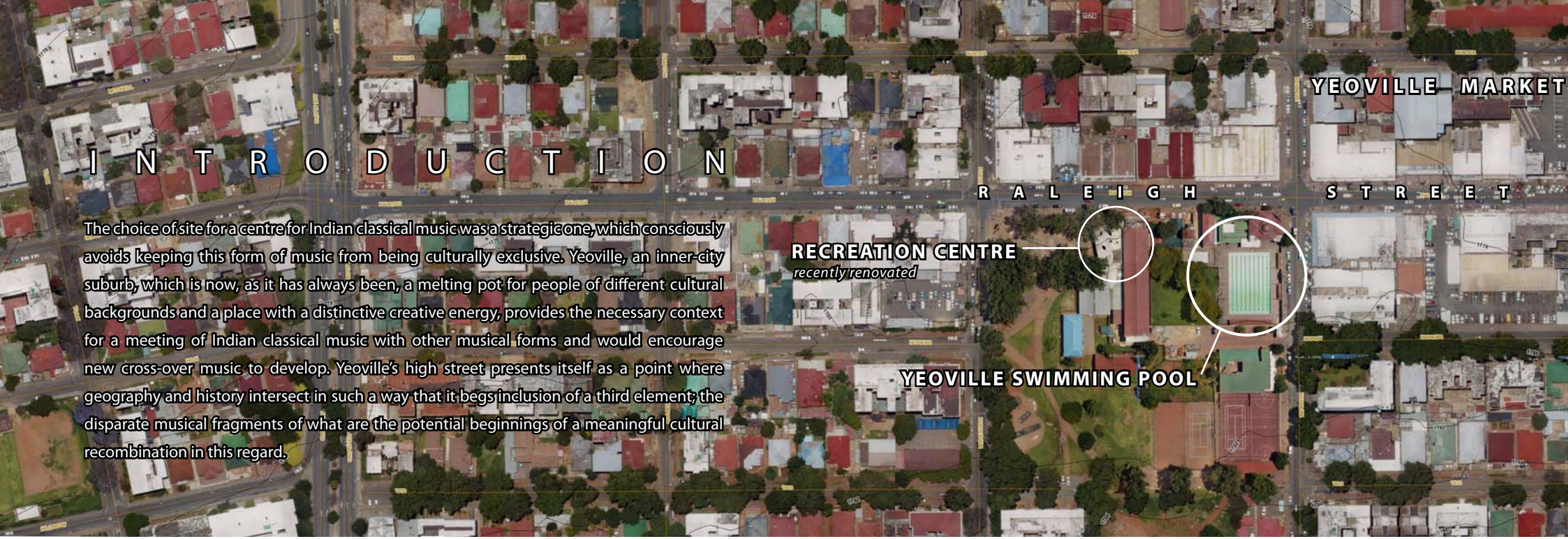


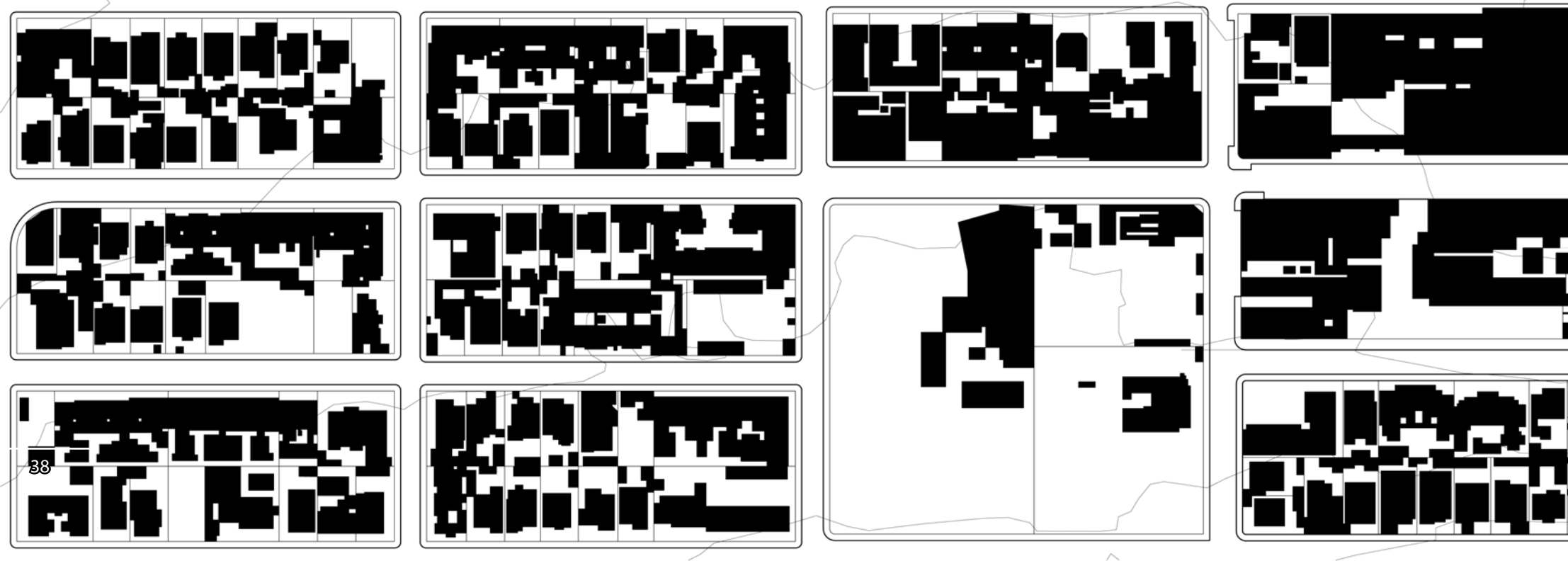
4. SITE



INTRODUCTION

The choice of site for a centre for Indian classical music was a strategic one, which consciously avoids keeping this form of music from being culturally exclusive. Yeoville, an inner-city suburb, which is now, as it has always been, a melting pot for people of different cultural backgrounds and a place with a distinctive creative energy, provides the necessary context for a meeting of Indian classical music with other musical forms and would encourage new cross-over music to develop. Yeoville's high street presents itself as a point where geography and history intersect in such a way that it begs inclusion of a third element; the disparate musical fragments of what are the potential beginnings of a meaningful cultural recombination in this regard.






THE SITE for the music centre in Yeoville takes up the entire area of the smallest block which fronts onto Raleigh Street. To the east of this block runs Cavendish Road, the boundary between Yeoville and Bellevue, which in fact acts as a contiguous suburb. To the south of the site is Hopkins Street, a quiet , tree-lined resedential street and to the west is Bedford Road, an artery which links Yeoville to Louis Botha Avenue to the north.
R O C K E Y S T R E E T
TANDOOR popular restaurant/ club originally started in the 1980s
RADOMA COURT designed by H. H. Le Roith and built between 1937-8. This block of flats is a fine example of the International Style in South Africa



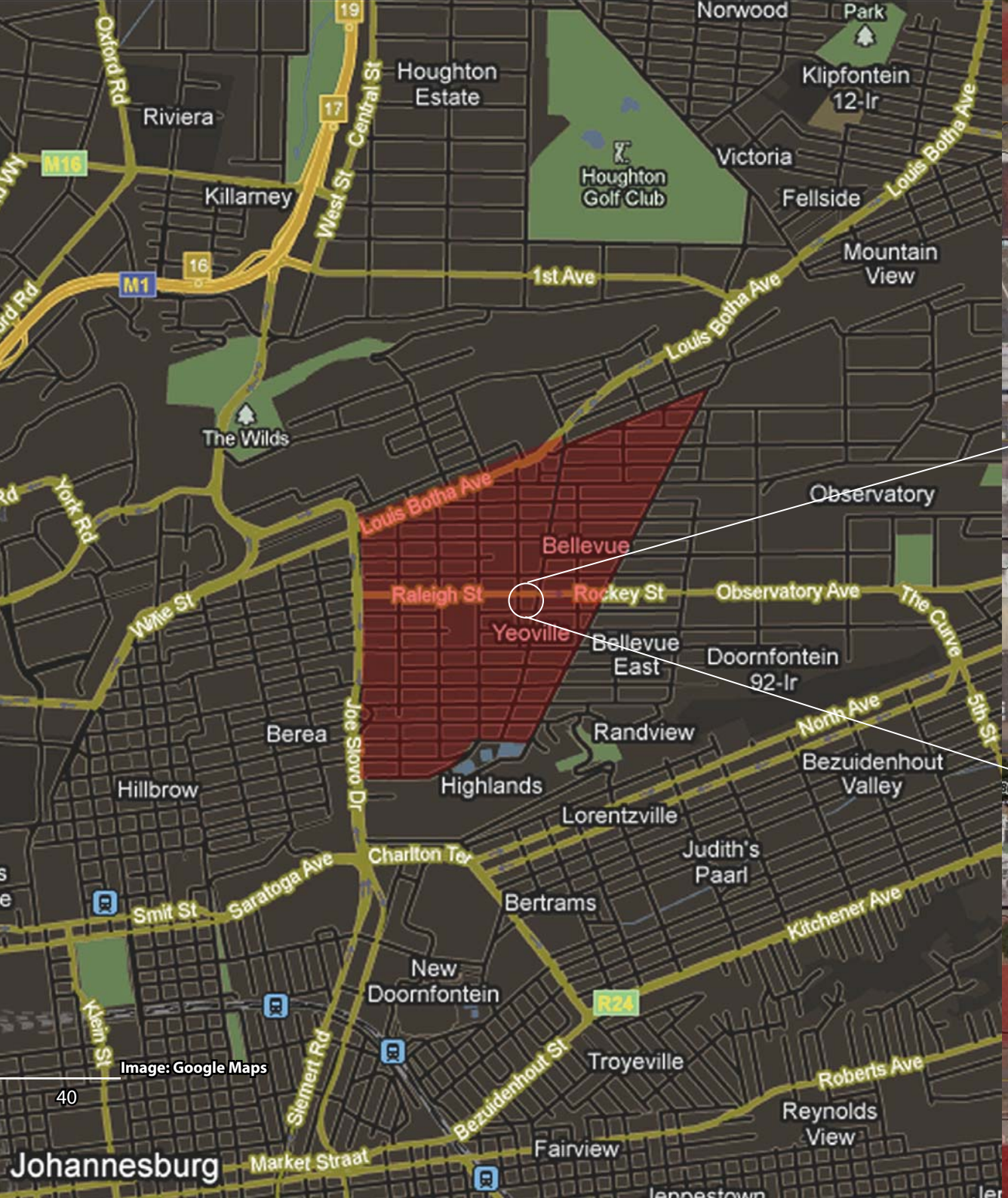


Image: Google Maps



Image: City of Johannesburg website



STREET TRADERS *Looking east down Raleigh Street, traders occupy the street edge between Cavendish and Bedford*





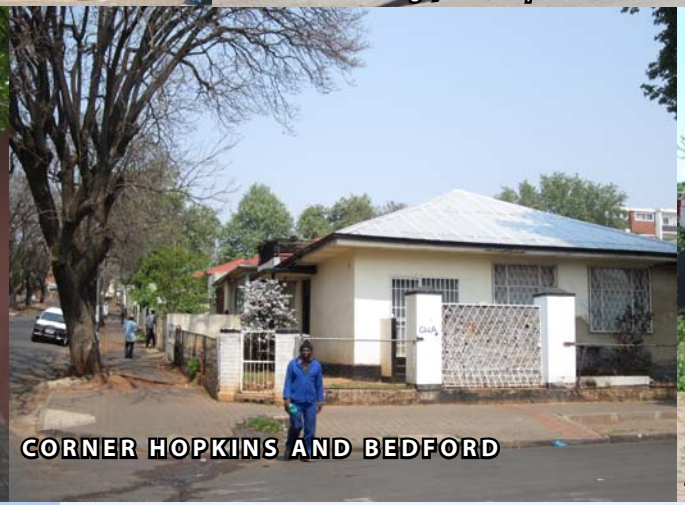
CLOTHES SHOPS & SALONS *are concentrated on the corner of Cavendish and Raleigh, an example of where the high street wraps around the corner*



BEDFORD ROAD *looking south*



HOPKINS STREET *looking west - a shady residential street*



CORNER HOPKINS AND BEDFORD



CAVENDISH ROAD *looking north*



CORNER BEDFORD AND RALEIGH



THE SITE *on the corner of Raleigh Street and Cavendish Road. The building which takes up much of this block, curretly a supermarket, 'Food Town', was put up in the 1980s and does little to engage with the street as it is has only one entrace roughly midway down the block*



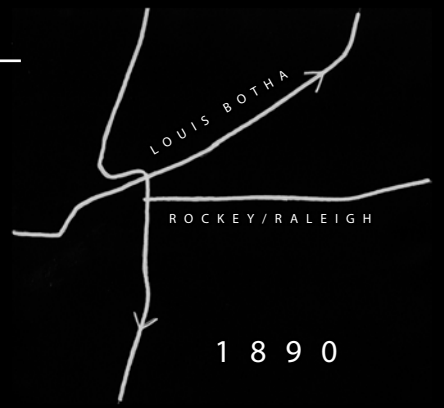

FOOD TOWN
drink
RALEIGH ST
ROCKEY ST
CAVENDISH RD

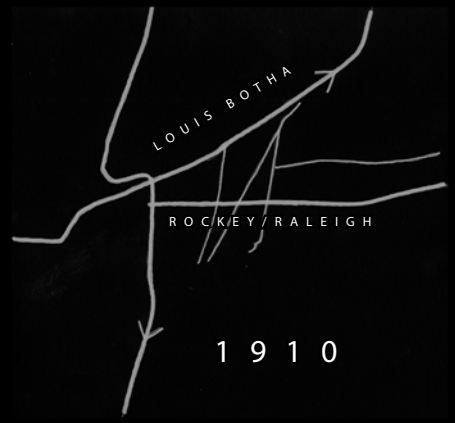
ORIGINS OF YEOVILLE

Yeoville, Bellevue and Bellevue East are three contiguous suburbs (collectively referred to by most as Yeoville) just to the northeast of the Johannesburg CBD. Yeoville was originally intended to be a 'sanatorium' for the rich, owing to its position on the northern ridge of Johannesburg, escaping the polluted air of the new mining town. The early Diggers' News of 1890 advertises the first sale of stands in Yeoville, bordering on the suburbs of Bellevue and Berea by auctioneer J. Kincaid. (Norwich 1986:127 et. al.)

Thomas Yeo Sherwell (1851-1924), the owner of the township, who lived in Hendon Street, gave his name to the township. Mr. Sherwell came from Yeovil, Somerset England, which could be an additional source for the name. Streets in the township were mostly named after family and friends or places with which the owner had some association. (ibid.)
Yeoville developed into a middle class area, Roux (2010:vii) describes it as having a village atmosphere and a population drawn, as always, from 'elsewhere'. Many East European Jews settled in Yeoville which was to be an important part of the suburb's identity up until the early 1990s.

The late 1970s saw the beginning of Johannesburg's alternative culture being focused in Yeoville along with a rich music scene as well as establishing a reputation of being one of the only places where the racial laws of Apartheid were openly flouted. The character of Yeoville at this time is one of the primary design drivers in this thesis - it displayed just the kind of positive cross-cultural negotiations between people from different standpoints within the bohemian community as well as co-existing with a well-established Jewish community.











ROCKEY STREET c.1925

The Reid and Christie Stores, or Scotch Corner as they are known today, are on the corner of Cavendish Road, where Rockey Street becomes Raleigh. The houses on the left were demolished some time in the early 1980s and the site acted as a parking lot and market, it was only in the late 1990s that the Yeoville market building was put up. (Photograph by W.M. Berlein, in Norwich 1986:129)

Yeoville has gone through a period of great change in the last twenty years. A demographic shift in the early 1990s as Apartheid influx-controls laws, designed to keep black people out of the city were relaxed and finally scrapped, has changed the population. Yeoville retains the creative energy present in the 1970s and 80s, and is now an equally vibrant suburb of a pan-African variety, sometimes spoken of as 'Little Africa'. (Roux 2010:vii)

What characterises Yeoville, and its high street particularly, is the rich layering; most notably spatially and historically. This is a result of the suburb being developed prior to the advent of professional planning, through what Dewar and Uytenbogaardt (1975:8) describe as an evolutionary, or ecological process, giving Yeoville its dynamic urban quality.

What appears on the following pages is a detailed segment taken out of Rockey Street which represents the most successful area along the high street. This strip of Rockey Street consists of the two blocks between Cavendish and Bezuidenhout. The mapping of the different periods in which buildings were built along Rockey Street reveals that this strip has the highest concentration of buildings built between 1920 and 1945, having one to two levels with a colonnade over the pavement, creating the character of the high street.

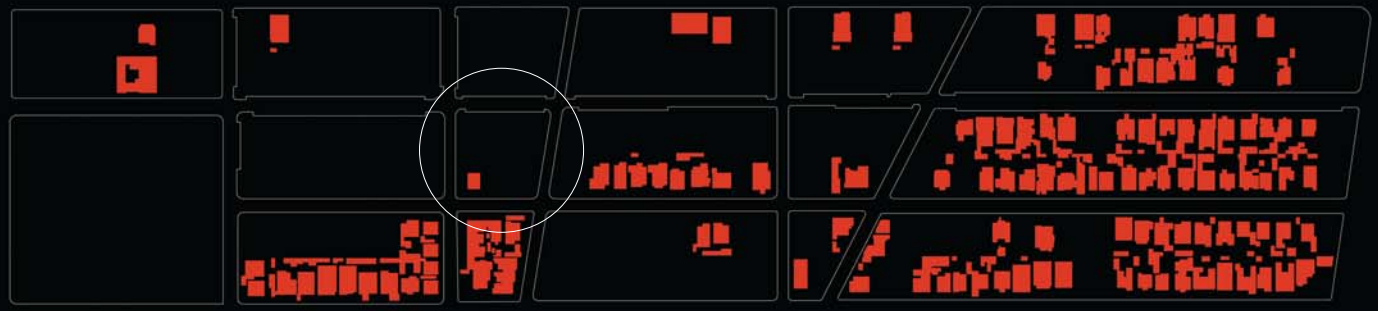
This is then followed by shadow and daylight studies of the site for the Yeoville Music Centre and the immediate blocks surrounding it. This chapter ends with a history of the alternative music scene in Yeoville in the late 1970s, 1980s and early 1990s.





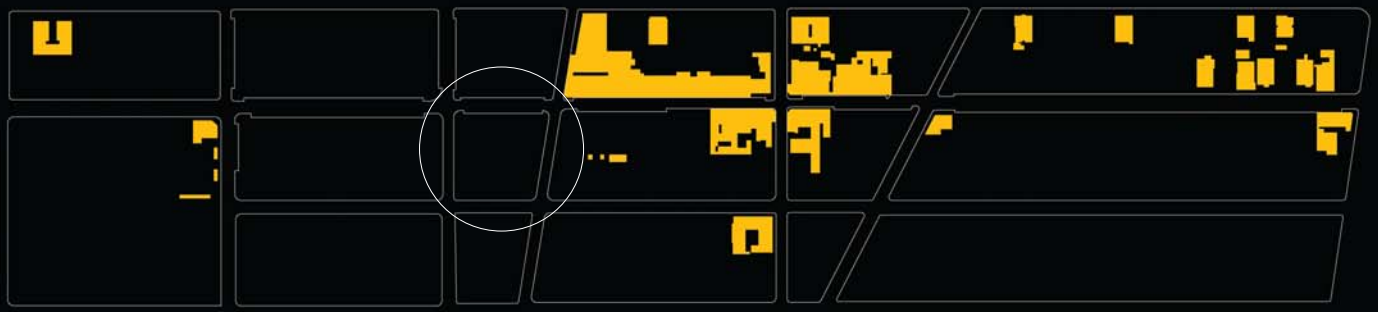
ROCKEY STREET 2011

Showing a similar view to what is shown on page 45, with the site for the Yeoville Music Centre on the left



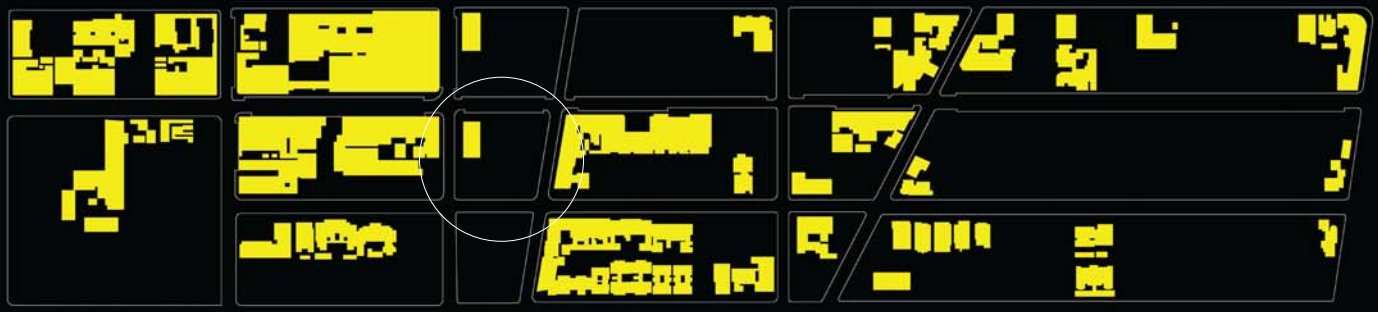
1890-1919

During this period, most of the stand-alone, single storey houses that typify Yeoville were built. Not one of these buildings exist along the main commerical strip between Bezuidenhout and Bedford. Some houses were demolished along the commerical strip as late as the 1980s



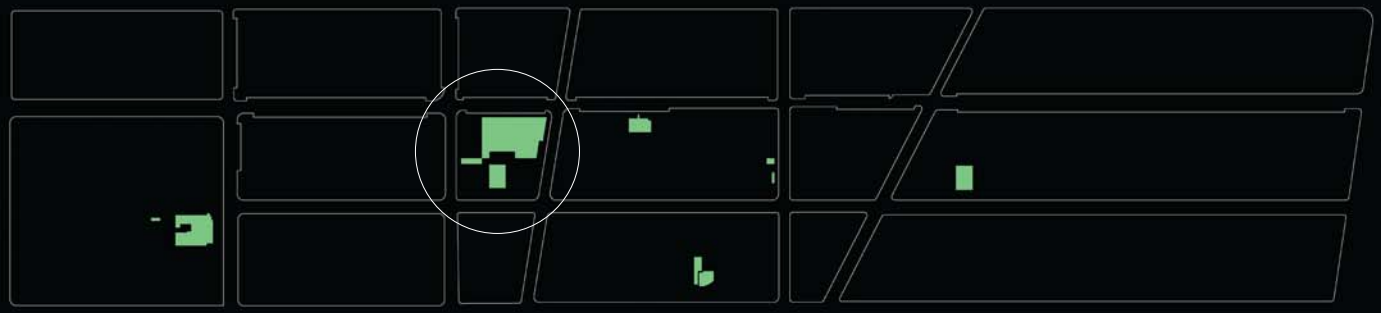
1920-1945

These buillings, primarily built in the 1920s with their narrow shops, courtyards and colonnades, give the high street its special quality. This high street typology is notable where Raleigh and Raymond intersect, in all probabilty the centre from which the commercial strip later developed.



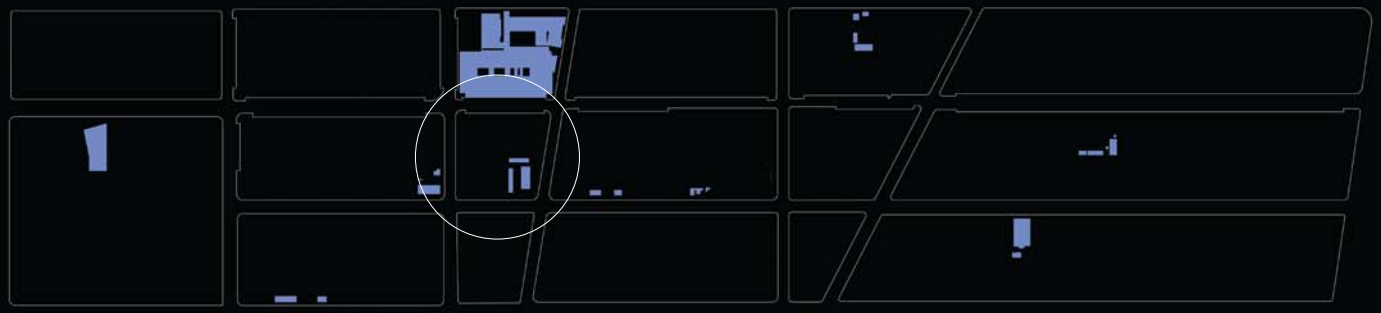
1946-1980

This period was one of intensive development in Yeoville. Stands were consolidated and flats upto eight storeys were constructed to deal with the rising demand for housing in the area. Buildings along the high street have shops on the ground floor, but without the colonnade, which was replaced with a cantilevered concrete canopy.



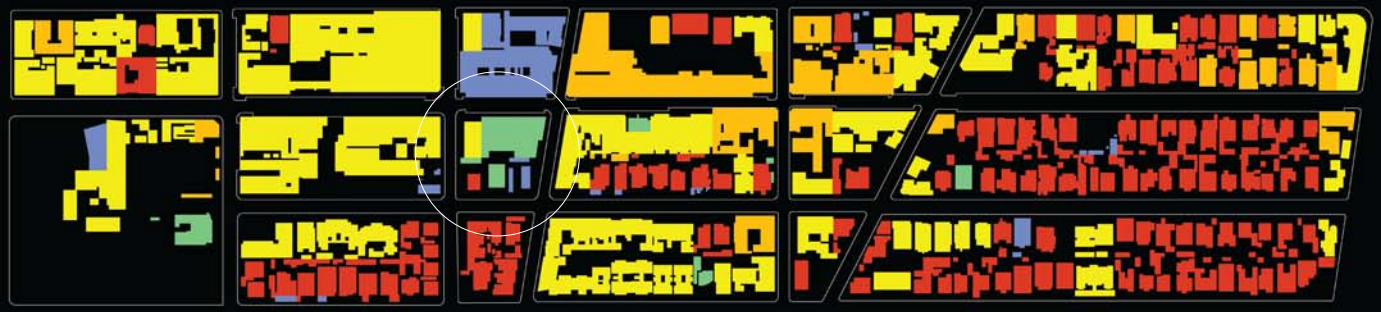
1980-1994

Few buildings were built during this period. Most significatly a building went up on the site for the music centre. Although it attempts to recognise the street edge with a colonnade, it is unsuccessful in that it closes itself off to the street, breaking the continuity of the strip



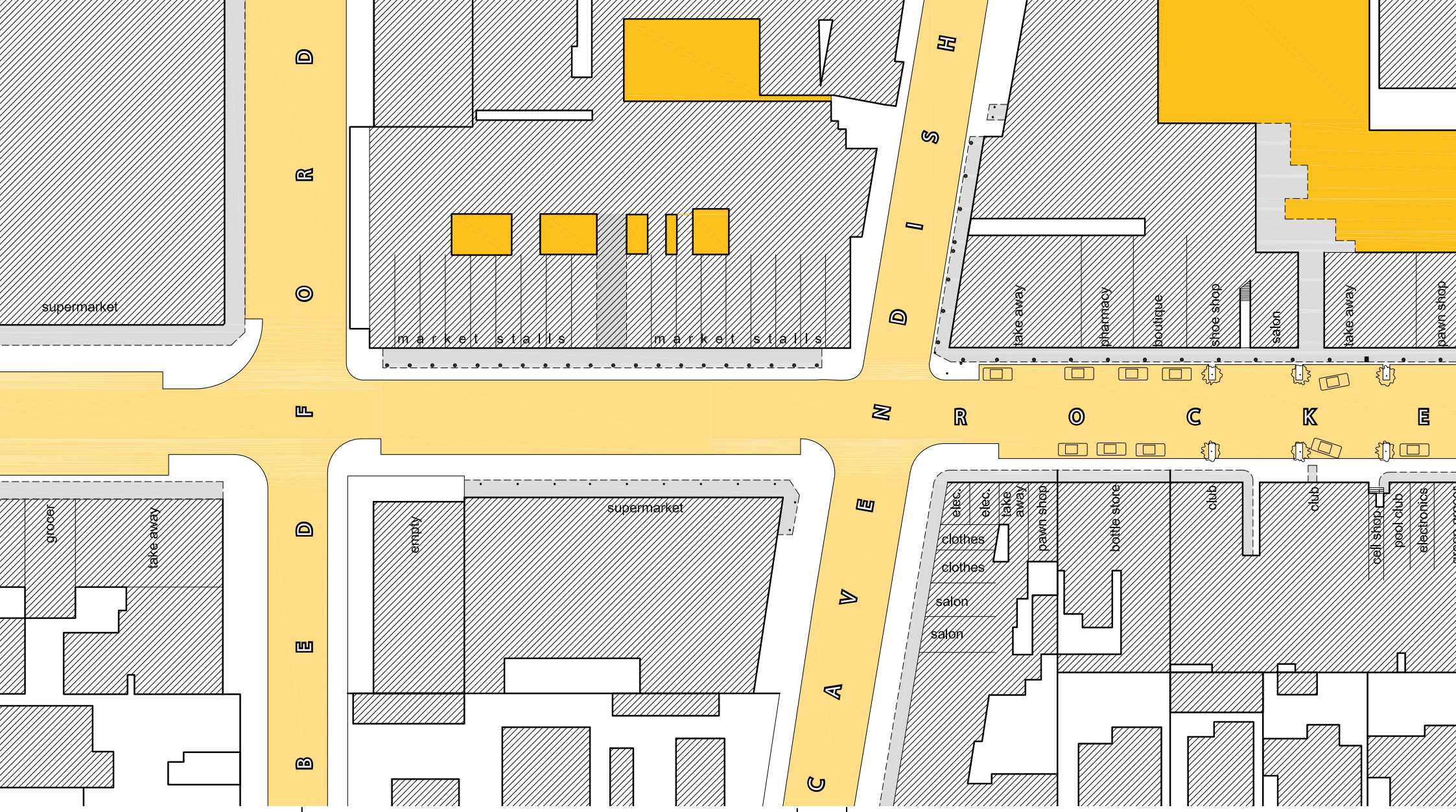
1994-

The most notable building that has been done is that of the Yeoville market and the renovation and extetion of the Yeoville recreation centre. A numer of small additions to buildings have been made, usually without planning permission.



composite

the composite reveals that this site contains some of the newer buildings on the Rockey/ Raleigh strip.



site for yeoville music centre, *as it is currently does little to enliven the high street - this is perhaps the most unsuccessful block as there is only one entrance. The fence along the edges of what was once the Yeoville library breaks the continuity of the street.*



Rockey Street strip, *this strip two blocks long, is the best example of a vibrant hightreet. This has to do with the scale of the shops which allow for a variety of differnt uses to exist in close proximity to one another. This is the strip that was the home of alternative culture in Yeoville.*


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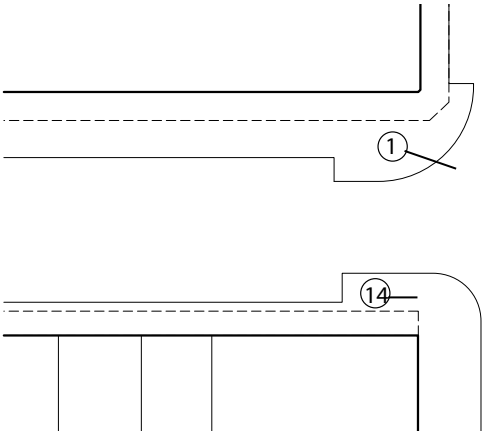

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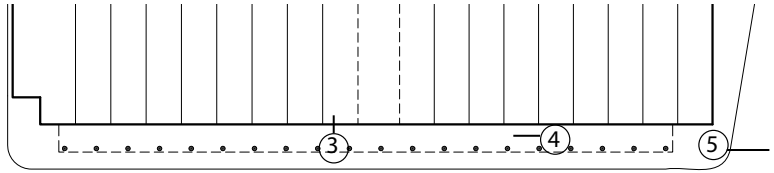

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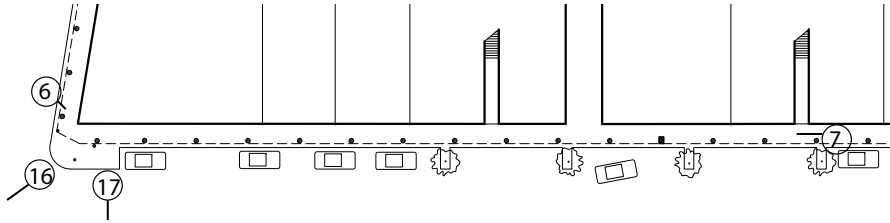

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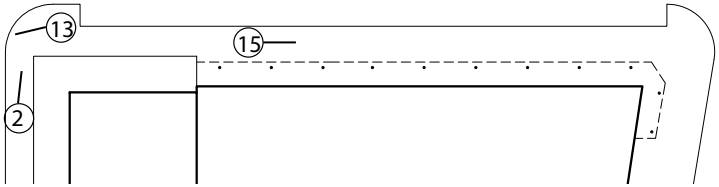

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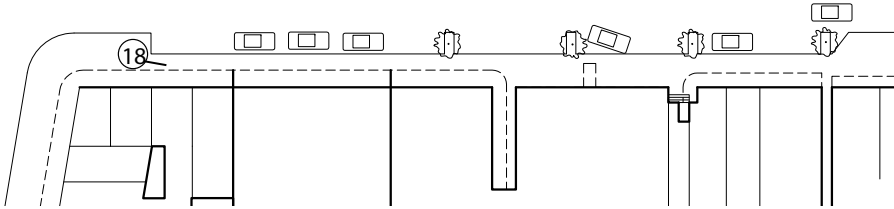

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ROCKEY ST


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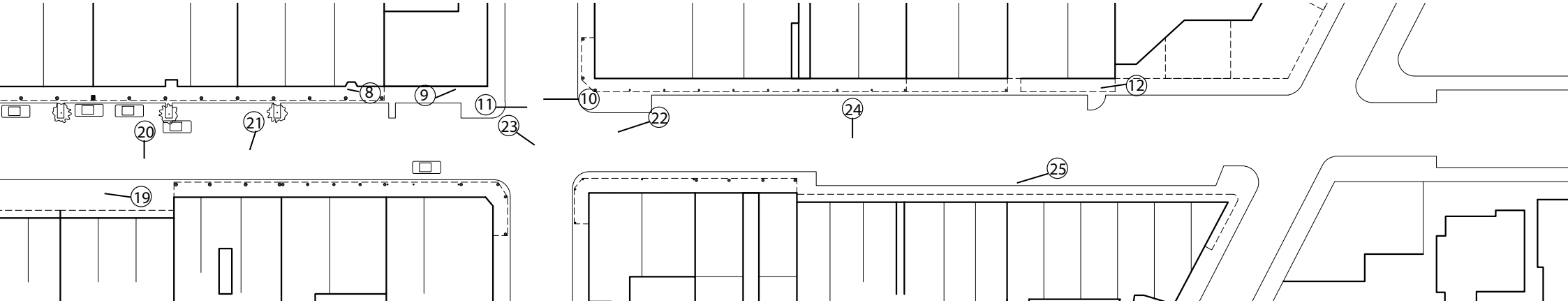
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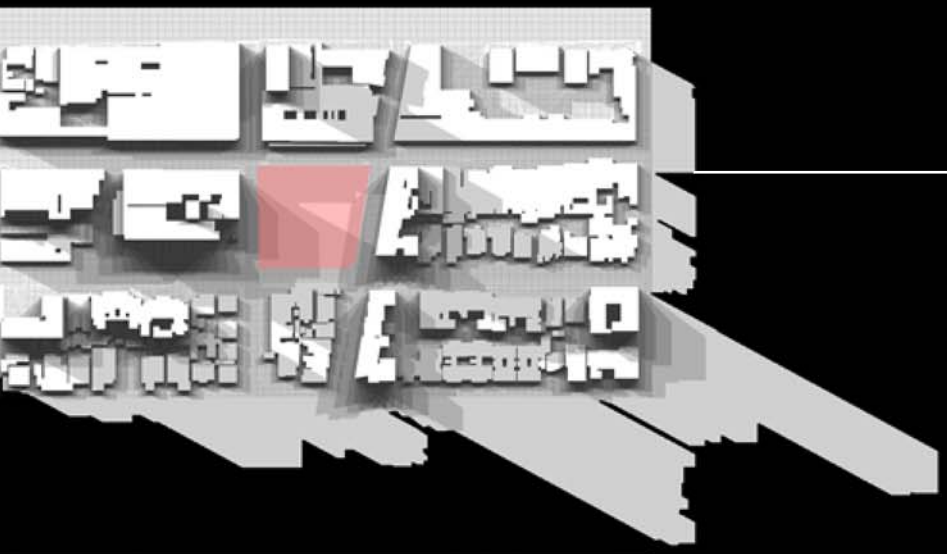
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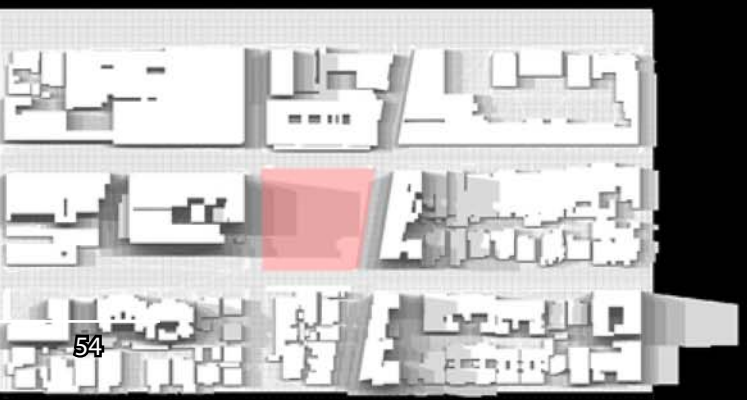
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WINTER SOLSTICE



EQUINOX



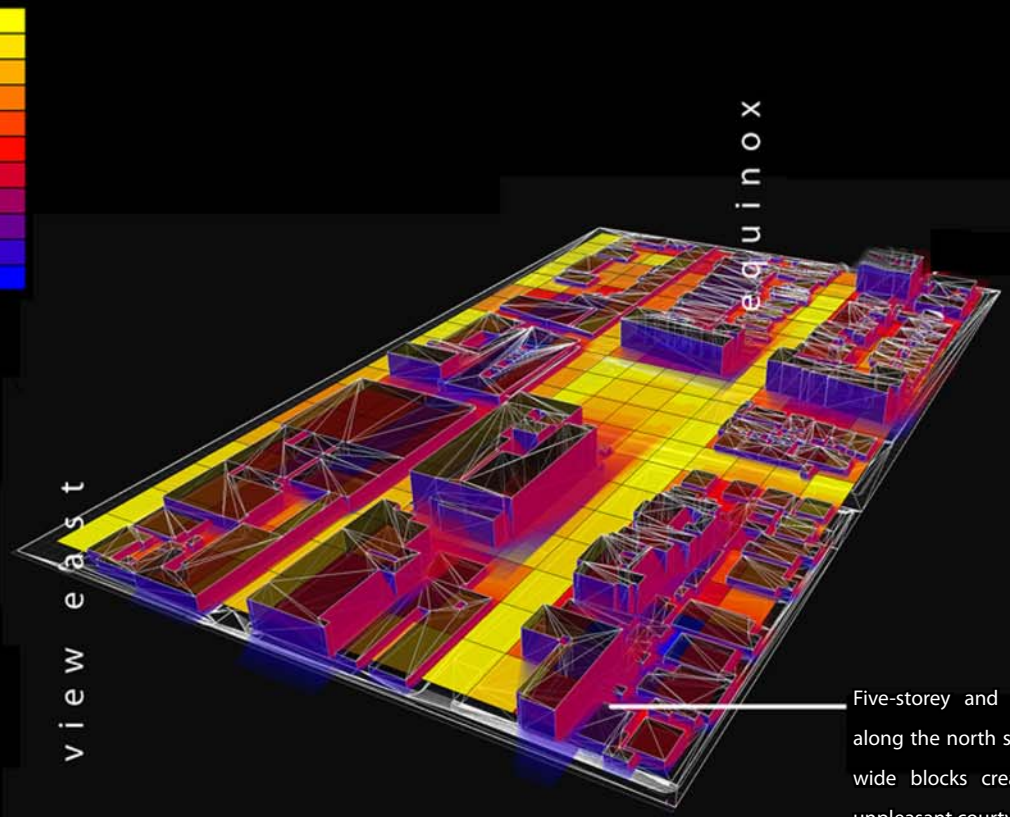
SUMMER SOLSTICE

SHADOWS AND DAYLIGHT

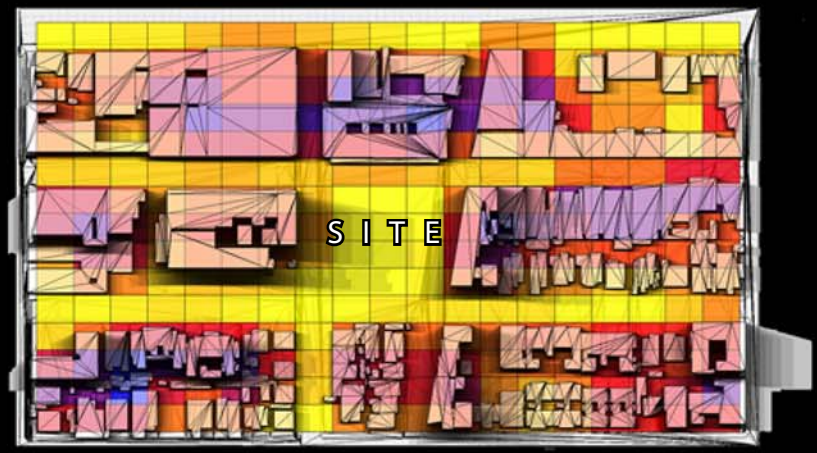
The site for the proposed music centre is flanked to the east and west by five and six storey buildings respectively and single storey buildings to the north and south. The images show the range of shadows cast over a period between 07h30 and 17h00. Most shading occurs in the late afternoon on the east of the site owing to the six-storey block of flats to the east. The most effective place for a public courtyard would be on the north-west of the site.

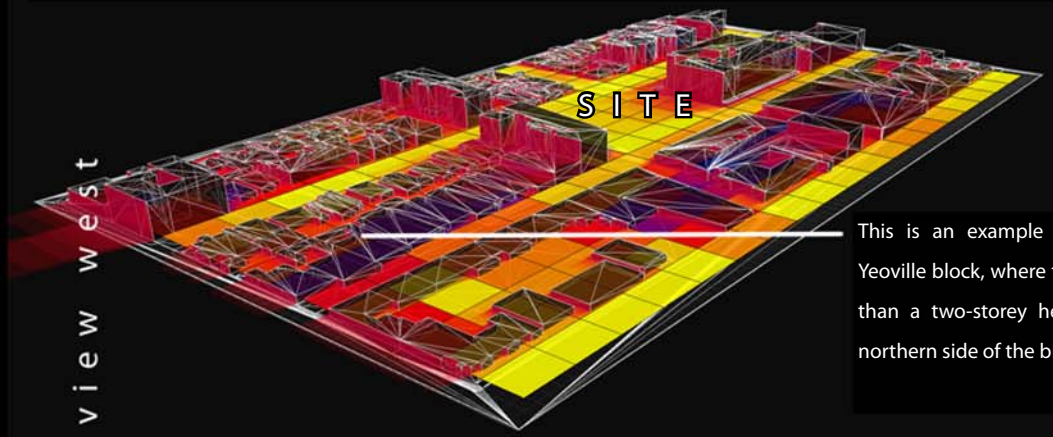
The daylight studies give a better understanding of the way in which the existing typology operates with natural light along Rockey/Raleigh Street. The graphics that were generated show the daylight on the equinox. The analysis confirms that the existing one to two level colonnaded buildings built between 1920 and 1945 produce the most agreeable daylight conditions in their courtyards. Buildings that are taller than three storeys along the north side of the block, tend to create dark courtyard spaces.

The analysis points to a critical ratio between site coverage and building height. Buildings built after 1945, differ greatly from the colonnaded typology, going up as high as 6 storeys which create dark and unusable courtyard spaces.

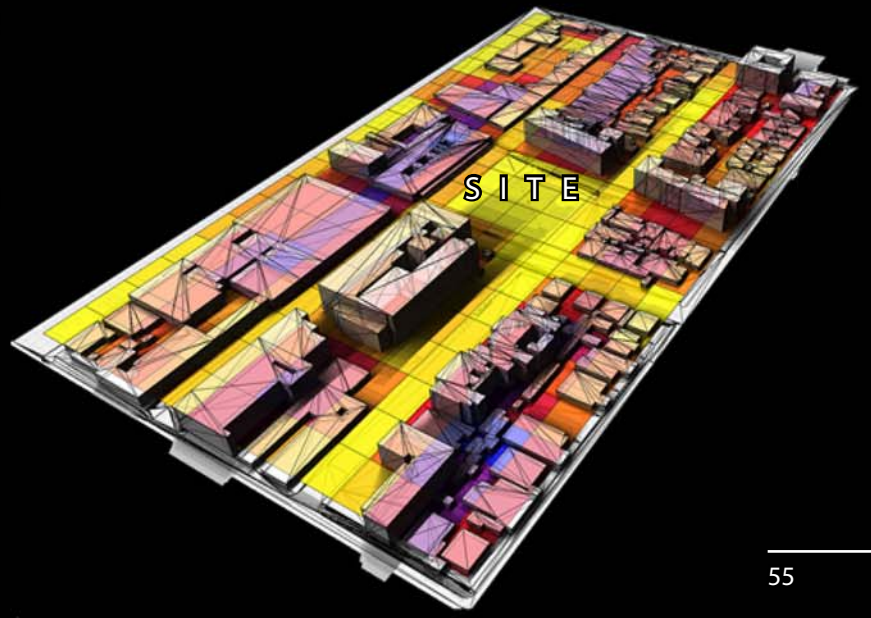


Five-storey and six-storey buildings along the north side of the 65-metre wide blocks create cold, dark and unpleasant courtyard spaces behind.





This is an example of a successful Yeoville block, where there is no more than a two-storey height along the northern side of the block.





Ja die lewe is maar swaar — *Yes life is tough*
Vir 'n alternatiewe Afrikaner — *For an alternative Afrikaner*
Die stad is nie may eie nie — *The city is not my own*
Dis 'n nuwe tipe anger — *There's a new type of anger*
Pedestrians is in my pad — *Pedestrians get in my way*
Liefde is in vreemde oë — *Love is in the eyes of strangers*
Koffie bly nooit bottomless — *Coffee never stays bottomless*
Voor 12 smaak whisky so-so — *Before 12 whiskey tastes so-so*
Ek's down and out in Datsun Street — *I'm down and out in Datsun Street*
Upper class in Yeoville — *Upper class in Yeoville*
'n criminal in Marabastad — *A criminal in Marabastad*
Ook in Sandton as ek sou wil — *And Sandton if I choose*
Hier's al weer niks skoon papier — *Again there is no paper*
In Highpoint se kakhuis — *In High Point's shithouse*
Ek is nie van hier nie — *I'm not from around here*
Die hele wêreld is my pakage-reis — *The whole world is my package tour*

Bomskok Babalas (Shell-shocked and Hungover) by André Letoit and Johannes Kerkorrel

NATIONAL WAKE, LIVE ON ROCKEY STREET - 1979-
Phtotgraph by R. Smith

ALTERNATIVE MUSIC IN YEOVILLE: 1970s, 80s & 90s

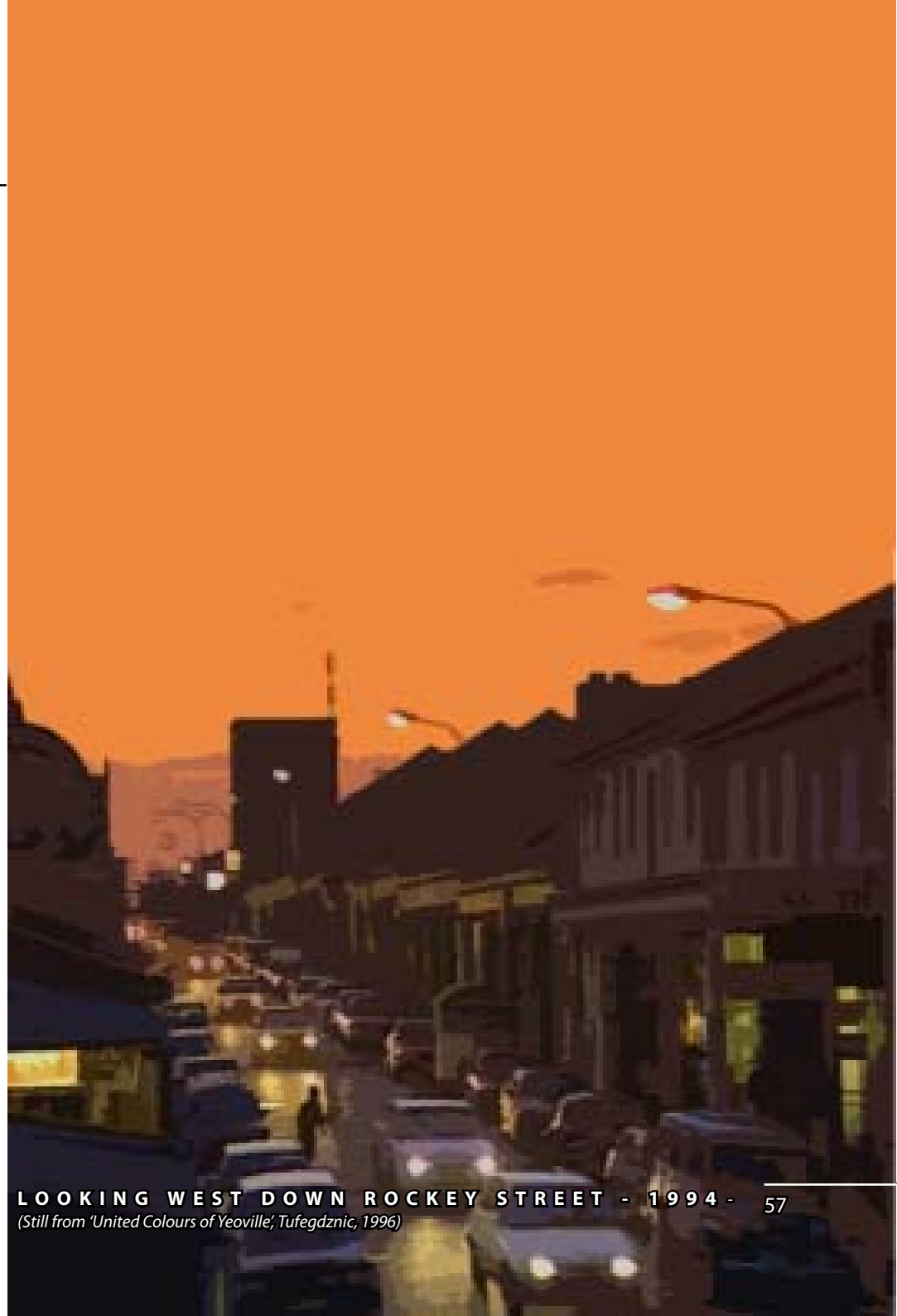
Yeoville, between the late 1970s and early 1990s, was populated by a crowd of artistic-types, eccentrics and nonconformists, which formed a rich alternative culture and has been likened to New York's East Village, Camden Town in London and even Christiania in Copenhagen. James Whylie, former Yeoville resident and playwright, describes Yeoville and its people thus:

[Yeoville is home to] a very small and specific tribe. It had no name, this tribe, but its members recognise each other when they meet. In the bad times, during the stonings and emergencies, these people were in exile. Sometimes the exile was local, and then the place, like the tribe, is difficult to name. My friend, painter and song writer [for the Yeoville-based group, the Aeroplanes], Carl Becker, came the closest. He called it, 'Zurich by the Gold Mines'.

Whylie, date unknown

The musical history of Yeoville was, and in many cases still is intrinsically linked to the many small shops, restaurants and courtyards which front onto Yeoville's high street. The field of study which shows the strong connection between music, identity and place is described by John Connell and Chris Gibson in their book Sound Tracks: Music, Identity and Place (2003). Their book differs from the usual study of the relationship between music and identity in that it recognises the importance of the places in which the music is made and where identities are formed and their interconnectedness.

The intention is to learn from the Yeoville high street typology by focusing on the urban fabric of two blocks which front onto Rockey Street between Cavendish and Bezuidenhout (on pages 50-53). These two blocks were the focus of the alternative culture and music scene in the 80s and 90s where some of the oldest buildings still exist, most notably Scotch Corner and the Solomon's Building, both completed in the 1920s.



LOOKING WEST DOWN ROCKEY STREET - 1994 -
(Still from 'United Colours of Yeoville', Tufegdznic, 1996)

My parents lived in Yeoville and so did all of their friends. I have vivid knee-high memories of Yeoville. I was in the big blue courtyard behind Crackers on my fifth birthday. It had these big Tipuana trees – the ones with the yellow flowers that drop liquid down on you...it had a walkway all around with lots of steps and levels. I ate my toasted cheese and saw Lizzy, my godmother, walking in from the side gate. She had a parcel for me...she always gave good presents...it was a walkman, blue and grey with those headphones covered in black foam. Inside was Mango Groove's self-titled album of 1989 which I still associate with the courtyard behind Crackers and the exciting buzz of Rockey Street to this day.

These are my memories of what was the tail end of something that had begun some fifteen or so years back. Musicians living in Yeoville in the 1970s, 80s and 90s have tried to capture the rich energy and spirit that was their Yeoville. Ramsay McKay's *Ballad of Rockey Street*, the Aeroplanes' *Living in Yeoville* and Moses Molelekwa's *Down Rockey Street*, to mention but a few, have all described this unique place with music and lyrics.

I had always heard my parents talk about Yeoville and what things were like there in the 1970s and1980s. They talk about what an amazing place it was to live, and say that places like Melville today don't come anywhere near to the type of energy that Yeoville had.

When I asked Liz Kirsten, a former Yeoville resident, if she could think of any place that exists today that reminds her of what Yeoville was like then, I got an answer that surprised me. I expected her to say Melville or Camden Town or some such place; she answered:

You mean anywhere in the world...you know, there was a such a high concentration of similar people that ran all the bars, clubs and restaurants and that lived in the area...it was a community. I can't think of anywhere similar excepting maybe in Denmark, there's a place called Christiania. (Kirsten 2011)

Christiania, also known as Christiania Freetown, is a self-proclaimed autonomous neighbourhood in the Danish capital of Copenhagen (Sale 2007: 55-56). It was originally military-owned land, was colonised by hippies and declared a free city in 1971, and has been self-sustaining ever since. It is an enclave similar to the one found in Yeoville in the 1970s, 80s and 90s.

This comparison between Yeoville and Christiania is one that I have not come across in any of the existing literature on Yeoville and perhaps explains why the collection of places of entertainment along Seventh Avenue in Melville is scorned in comparison to the kind of spirit that existed in Yeoville at the time.

Under Apartheid, an energetic music scene existed in Yeoville, one where black and white people mixed: "certainly there were black people in the clubs" (Kirsten 2011). This music scene was actively suppressed by the authoritarian regime of Apartheid, which Craig Duncan, a presenter on Radio Wave, a Czech-based punk music radio station describes as "probably the most dissident alternative music scene of the twentieth century.... a multi-racial musical underground at a time when racial mixing was a criminal offense." (2009)

The emergence of Yeoville as a bohemian enclave has its origins in the government planning policy of decentralisation and expansion started in the mid-1970s. Clive Chipkin in *Johannesburg in Transition* (2008), describes how Johannesburg underwent this change in an effort to decrease pollution, congestion and high land values in the CBD. Until then, entertainment had been focused in the CBD, Joubert Park and Hillbrow, populated by mainly young white people. In the mid-1970s, there was movement from the CBD, Joubert Park and Hillbrow into Yeoville as well as people moving out. Liz Kirsten, who lived in Yeoville between 1976 and1993, describes that period of decentralisation:

...there used to be quite a lot of influx into Yeoville and people moving out, so every month there'd be things left on the street. [My friends] Adie and Katrina would go out looking for things on the streets, because people would put things out. So, many people had found- objects in their flats... they would have works of art, or useful things, but it was just one of those things that people did. (Kirsten 2011)

This was the period when Yeoville was beginning to develop a youthful and alternative cultural identity. People were united in their rejection of the monolithic Afrikaner cultural establishment. Kirsten (2011) recalls, "there were a lot of like-minded people living in one place, so it was unique in that way...it had an essence about it; living in a community of like-minded people."

Along with this went the establishment of places of entertainment. Maurice Smithers, a Yeoville resident since the 1970s, is of the opinion that the establishment of the small club on Rockey Street, Café Casablanca, opened by the music producer Patrick van Blerk in the mid-1970s, was the kind of establishment that focused peoples' attention on Yeoville. Café Casablanca is described by Nigel Coutts (2011), a musician and regular in Yeoville describes Casablanca as "an exclusive restaurant". La Tortu was another of the first entertainment spots: Smithers (2011), describes it as "one of the first places you could get a drink...it was a u-shaped building that was around a central square with a fountain - a very nice space." The 'u' was closed a few years later by Rockerfella's, a bar and restaurant that went up with the rapid development of the strip some years later.

This u-shaped building at 8 Rockey Street could be seen as a typology which lent itself to the establishment of social gathering spaces for the wave of young people who were moving into Yeoville. John Dewar (2011), a Yeoville resident from 1975 to 1986, describes this building:



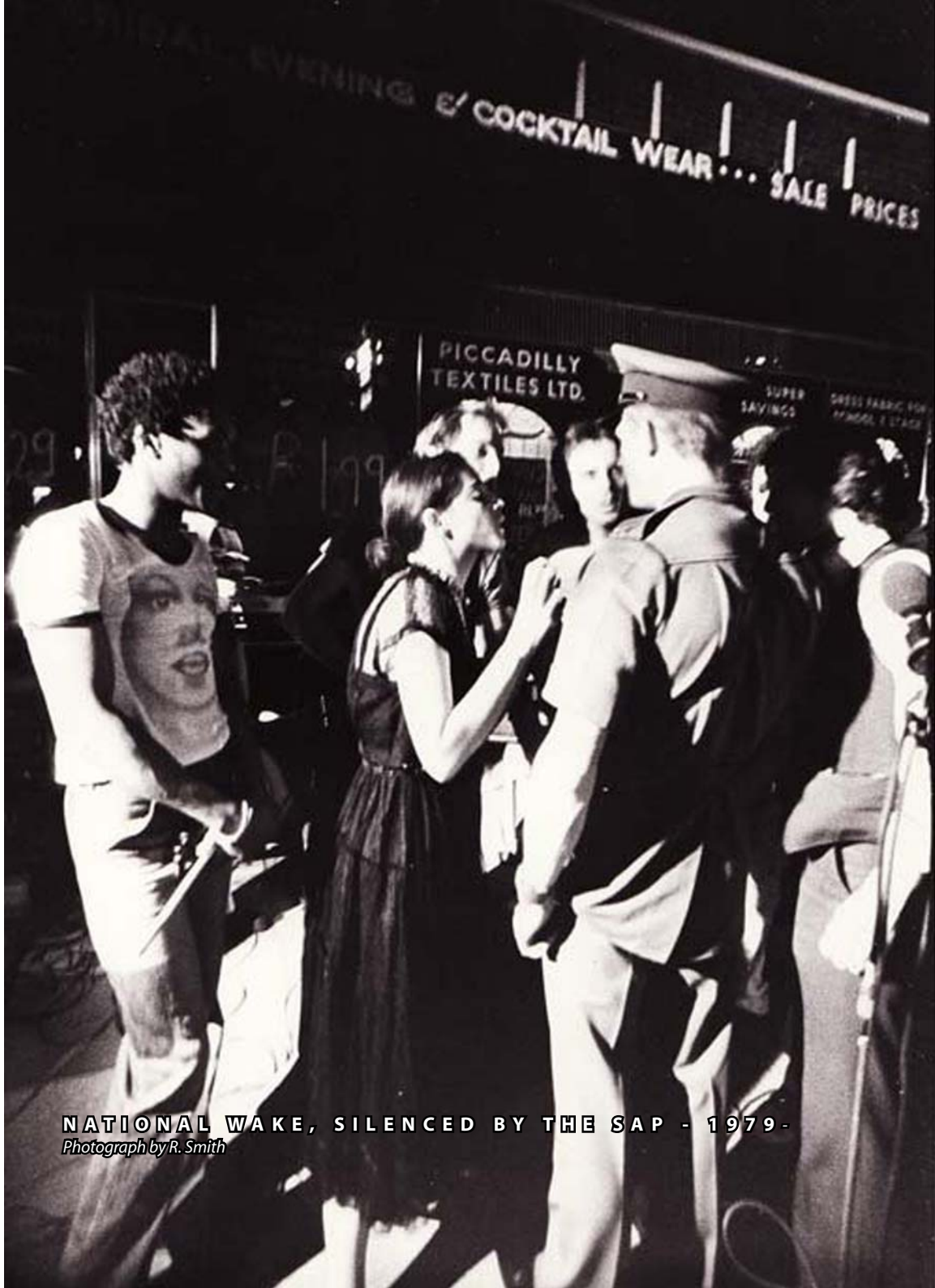
ROCKEY STREET PARTY - 1985 - *looking east*
Photograph by K. Steele- du Peez



ROCKEY STREET PARTY - 1985 - *The square outside Tortu, on which the club Rockerfella's now stands . Photograph by K. Steele- du Peez*

The whole building was owned by Mrs. Lisica. She ran Piccadilly Textiles at the back of the site. Besides [La] Tortu, there was a record library in the one corner....I used to go and get stuff like Chick Corea, Weather Report and Frank Zappa and put them onto [cassette] tape; we all did....there was a demand for a place like that because there were a lot of people like us who were into cool music which wasn't that easy to get hold of then.

This central square at 8 Rockey Street was also the scene of a most colourful event one midsummer night in 1979. National Wake, South Africa's first mixed-race, five piece punk band played an open air gig. The band's music has been likened to The Police and their music had a distinct political message, as rhythm guitarist for the band, Ivan Kadey put it: "wake up the nation and dance on the corpse of Apartheid." The gig started as the last rays of sunlight disappeared and an excited crowd of young eccentrics gathered at this venue while people in the busy street looked on. Six numbers into the set, the police arrived. The band was allowed to play a closing number before the SAP relegated them to silence.



NATIONAL WAKE, SILENCED BY THE SAP - 1979-
Photograph by R. Smith

RUMOURS DOWN ROCKEY

Rumours was a jazz club started at 24 Rockey Street one night in August 1979 by Art Kelly and Howard Libson.

Art was a blond guy with a faded, laid-back look. He had a nightclub tan - the dude was pale, man. He spoke in a slow Joburg drawl, and his tall angularity was the perfect counterpoint to the voluptuousness of the double bass he played. Howard had a London accent. He was balding with big glasses. He was the one with the brain for business. (Greef 2004)

Some see the Rumours as a seminal establishment of the alternative scene in Yeoville. It was definitely part of the first wave of young bohemians who settled there. In the mid-1980s there was a different set of young people moving in. The crowd at Rumours saw them as "roughnecks who would walk around barefoot and hassle for coins to buy dope" Dewar (2010). Kirsten (2010) describes this new wave of people as "a different crowd, people who liked heavy drinking and fighting in the street. We were a cooler crowd, a lot more laid-back, more hippie".

Here, music was used to create a sense of space in what was otherwise "a dark and smoky club" (Kirsten 2010). It was a way to reaffirm certain social identities, in this case between the first and second wave of young people settling in Yeoville.

They didn't let anybody in, they would always look through the peephole and if they knew you, or if you looked OK, they would let you in. If there was a new doorman, they'd have to go and call Art or Howard who worked behind the bar and they would say she's OK, she can come in.

It was just a bar, I don't know why it had such an ambience. I think it was just the people that went there. There were a lot of actors and musicians, but I don't know what the draw card was exactly; it was definitely the people and the people that ran the bar." (Kirsten 2010)

International artists visiting Johannesburg would without a doubt stop in at Rumours for a jam with Art and the boys. "Chick Corea, Al Jarreau, Abdullah Ibrahim, the Brecker Brothers, Lionel Pillay, Stan Jones, Bruce Cassidy of Blood, Sweat & Tears. Even Ronnie Scott played there," recalls Greef (2004).

Rumours began to change towards the end of the 1980s. Greef (2004) describes how the plate-glass window was replaced with glass bricks. A wall was knocked down and the tiny room expanded. In the late 1980s the doorbell broke for the umpteenth time and was never replaced. Mfaniseni Thusi, the trombonist of the jazz band Bayete, active on the Johannesburg jazz scene between 1984 and 1993, describes the Rumours of the mid to late 1980s:

I was living in Hopkins Street and to walk from there to Rumours at any hour of the night was never a problem. [Rumours as well as the other clubs in the CBD] provided a platform for progressive musicians and poets. There were lots of jam sessions, musicians enjoyed sharing the stage. In those days we had bands like Bayete which was the band I played with at the time, Sakhile, Theta, African Jazz Pioneers, Tananas and Peto just to name a few.
(Thusi 2011)

Many of these bands played at Hugh Masekela's club at the Piccadilly which was established in what used to be a cinema. The club was short lived, but it "provided a platform for [black] musicians who were living in Yeoville at the time" (Thusi 2011).

LIVING IN YEOVILLE

You're intellectual and creative
You want to find a nice place to live
From Living in Yeoville by the Aeroplanes

Living in Yeoville wasn't easy for all. Under the Group Areas Act (No.41 of 1950) Yeoville was classed as a residential area for whites only. The black musicians playing in the inner city jazz clubs often found it necessary to stay overnight, owing to the late hours gigs ended and lack of transport. Due to this situation many musicians found permanent residence in the CBD, Berea, Hillbrow and Yeoville. Mfaniseni Thusi (2011) describes what it was like to live in Yeoville in the 1980s:

Most of us as musicians managed to find apartments illegally under false names. Our white friends had to register their names as tenants and we moved in. My first illegal apartment was in Berea. We had to always avoid white neighbours noticing that we actually lived there. It was truly hard but the main reason we had to stay in the city was to avoid transport problems and also daily harassment by the police...I remember one time in the building where I was staying in Yeoville, this Jewish guy in his black orthodox suit saw me locking my flat and without asking me who I was he said: "If I see you here again, I'll call the police." My answer was: "What are you waiting for?" With all the wonderful things happening in Yeoville, we were sometimes shocked by things like this.

Movement between the city and Yeoville was not always easy. Ivan Kadey, architect and member of the mixed race punk group, National Wake, describes how they were affected by the restriction of movement at the time.

Gary [and] Punka (the black members of the band) were at risk of being arrested for not having the right to be in the neighbourhood...there were black policemen who used to stake out the park which lay on the route to the [shops] and Hillbrow — one in particular, Bomma'Kama, is the character 'Bolina' in the song of that name." (Kadey, n.d.)

Many musicians of the time identified themselves as being above the racial segregation of Apartheid. It may have been that they were united by a common language of music. Ivan Kadey speaks of their open-air performance on Rockey Street in 1981 (as well as one at Highpoint in Hillbrow) as being their most incredible gigs. Kadey, speaking in a Radio Wave broadcast titled Wake Up the Nation, puts this down to the fact that the street, in this case Rockey Street, was an integrated part of the city and that the band fitted into the scene naturally as describes the gig:

Seeing a group of musicians of different races always put a charge into the air. When we unleashed our electric music, things took on positive energy as the band could really deliver, and these were amongst some of the most satisfying gigs we played.



NATIONAL WAKE, SOUTH AFRICA'S FIRST MIXED-RACE PUNK BAND *Painting by Leonie Roberts, 1979*

5 .ARCHITECTURE/MUSIC

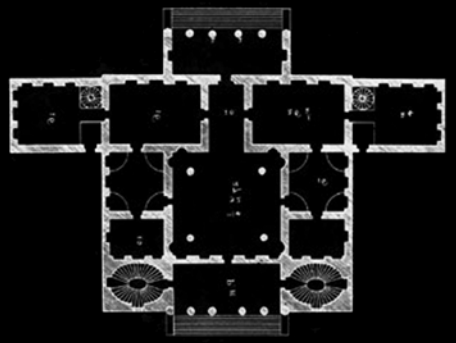
Two methods of deriving architectural space

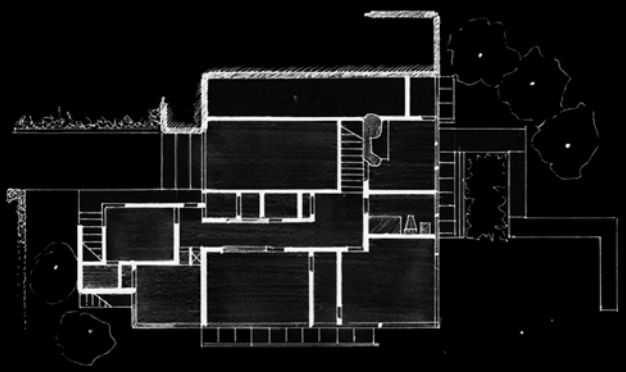
ARCHITECTURE AS A SERIES OF HARMONIC SPACES

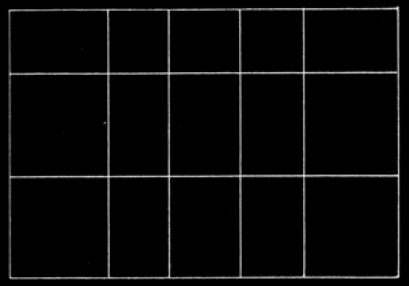
H O W H O U S E ,
RUDOLF SCHINDLER, LOS ANGELES - 1925

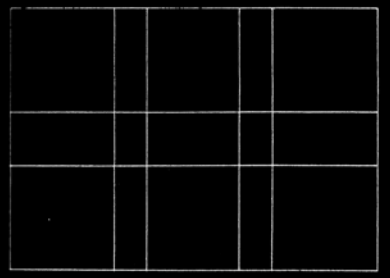
Schindler, a student of both Otto Wagner and Adolf Loos has achieved in the How House "a virtuoso performance of proportional design" (March and Sheine 1993:144). The How House could arguably be said to build the harmonic proportioning of classicism anew, quite clearly paying homage to both Palladio and Alberti in that he has progressively transformed, for example, the Palladian villa plan into the plan for this house. The facing page shows a musical analogy of a portion of the plan of the How House, done in much the same way as architectural proportions were derived from music in the Renaissance. March and Sheine (1993:144) suggest that Schindler should be considered as being to architecture, what Webern has been to music.











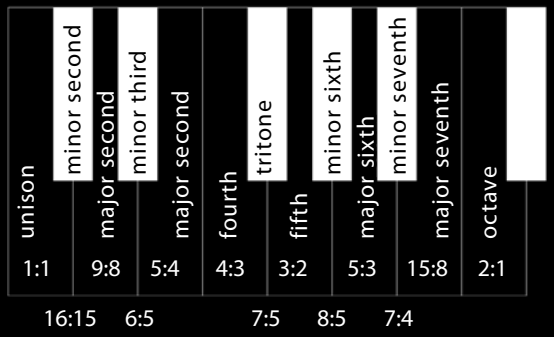
V I L L A C O R N A T O

The plan for Palladio's Villa Cornato makes use of a 5 x 3 rectangular grid. The proportioning across the length is A + C + B + C + A, where A is larger than B, and B larger than C; the proportioning from front to back runs a + a + b. The 5:3 rectangle is a classical convergent to cube root rectangle and was especially recommended by Palladio.

H O W H O U S E

Schindler's plan follows the same proportioning as Palladio across the length of the rectangle, i.e. A + C + B + C + A, but the proportioning from front to back is a + b + a. This makes Schindler's plan symmetrical about two axes, and Palladio's just about one.

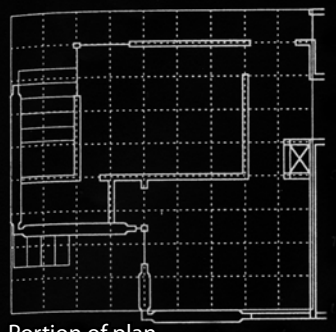
All Images after March and Sheine (1993:132-144)

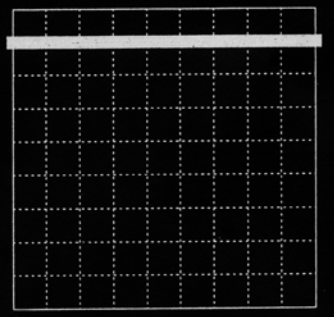


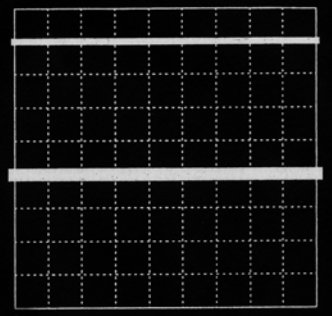
M U S I C A L A N A L O G Y

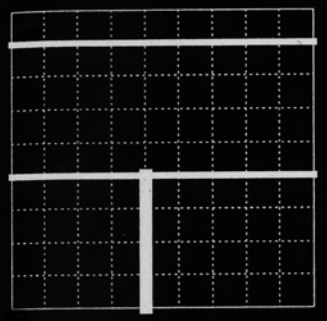
Musical ratios are derived from the ratio of frequencies over the root note. The diagram above shows a keyboard with the harmonic proportions relative to C. What follows is a musical analogy adapted from March and Sheine (1993:143-4)

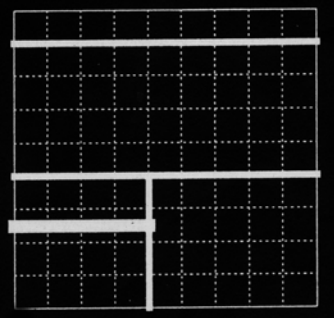
1. *A 9:8 rectangle (tone) is created to establish the outer wall.*
2. *The 9:8 rectangle is subdivided into two 9:4 rectangles, (octave and tone)*
3. *The 9:4 rectangle is subdivided into 1:1 (unison) and 5:3 (major third)*
4. *The 1:1 rectangle is subdivided into 8:3 (octave and fourth) and 8:5 (major sixth)*
5. *The out 8:5 rectangle is subdivided into a 4:1 rectangle (double octave) and a 8:3 rectangle*
6. *The inner 8:3 rectangle is subdivided into a 3:2 (fifth) and 2:1 (octave). Each new rectangle becomes a closet*
7. *The remaining 9:4 rectangle is subdivided into 2:1 (octave) and 7:4 (minor seventh)*
8. *The7:4 rectangle is subdivided into 5:4 (major third) and 2:1 (octave)*
9. *The 2:1 rectangle is subdivided into 3:2 (fifth) and 2:1 (octave)*
10. *The new 2:1 rectangle is subdivided 5:4 (major third) and 4:3 (fourth)*

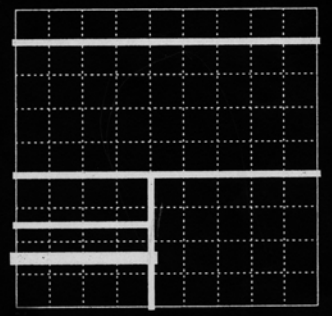

Portion of plan

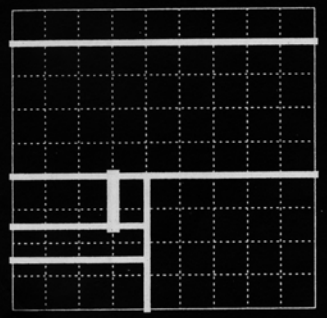

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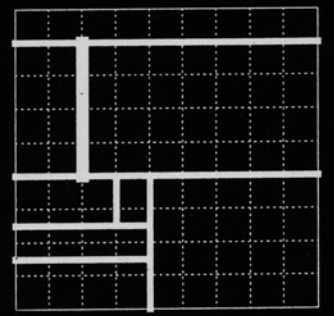

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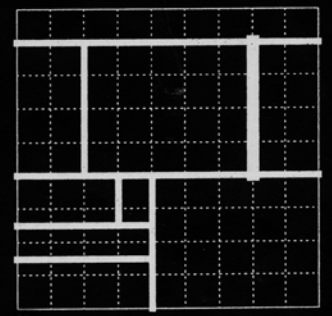

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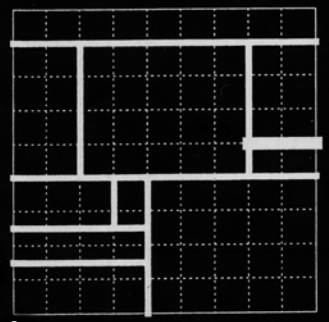

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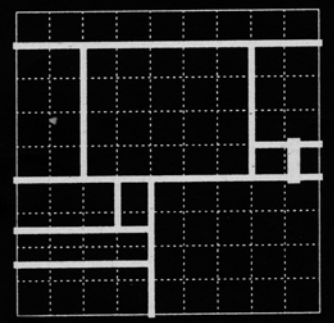

5.


6.


7.


8.


9.


10.

SPATIAL ANALYSIS OF RAGA

What is quite remarkable about music is its ability of music to exist in its entirety in a single moment, and its impact, or quality has very much to do with the cognition of the listener. A musician, or aficionado of music will have the ability to hold much larger structural concepts in their head.

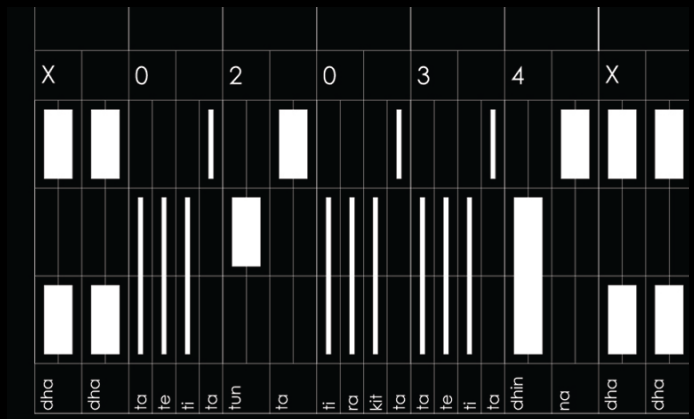
The structure of a Raga is something that is not always an easy thing for a Western listener digest. The first thing that often makes the music unrecognisable is the absence of harmony, or chord structure, or what some may call a 'bass line'. These are the devices that are perceived in the west, as well as in other music forms, as the elements of the music which orientate the listener. A musician who is playing, for example, in a jazz band may ask for the chord structure to be able to understand the piece of music and then easily meld in with the band.

Raga explores one principal mood, which is based on a selection of notes accompanied by a strict set of governing rules. These rules set out in which order the notes should be played, for how long each noted is to be played and order in which they should be played. Each Raga has at least one characteristic musical phrase, or pakad, making it discernable from other Ragas. The pakad phrase could be viewed as a sort of sketch, or musical symbol which sums up the Raga.

Music aficionados take great joy in trying to guess which Raga is going to be played by a musician, who traditionally decides what he will play quite spontaneously, usually based upon the Raga's affiliation with time of day, certain atmospheric conditions or type of celebration. When the musician does not immediately disclose what Raga is to be played by way of announcement or immediately playing the pakad phrase, he plays what is called a gupt Alap, or hidden Alap. Here the musician dwells on three or four notes in a game of trying hint at different Ragas and never quite resolving the pakad phrase.

The analysis of the final Bandish (set composition) of Raga Marwa recorded by Ram Narayan aims to spatialise a portion of this compostition. The Bandish is particularly rich in that it has a more perceptible structure as the improvisations are played over a fixed Bandish in Ektal Tal, a rhythmic cycle of twelve beats divided 2+2+2+2+2+2. The following pages show the spatial qualities Raga Marwa, firstly by showing the melody line over the rhthmic cycle which was drawn in such a way to try and capture both the technicality and expression of this piece of music.

The resulting music 'diagram' was then modelled in three dimensions and by using parallel projection, three spatial compositions were generated , the results of which were surprising in that they were able to capture a certain something about the Raga , that in its description is often quite elusive.



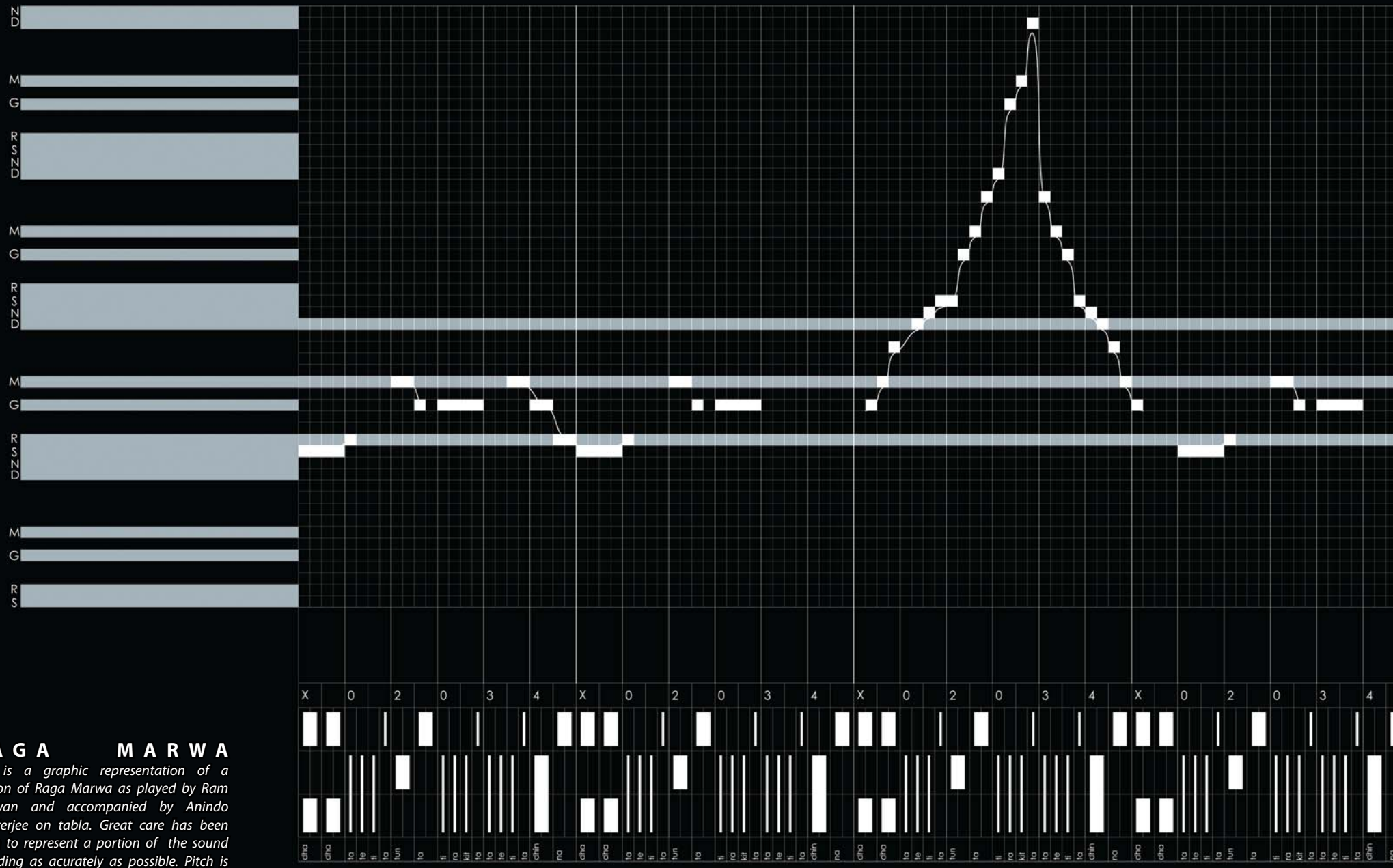
STRUCTURE OF EKTAL

Each stroke is represented by a syllable which describe a certain stroke to be played on the tabla: dha-dha-ta-te-ti-ta-tun-ta-ti-ra-kit-ta-ta-te-ti-te-dhin-na-dha-dha



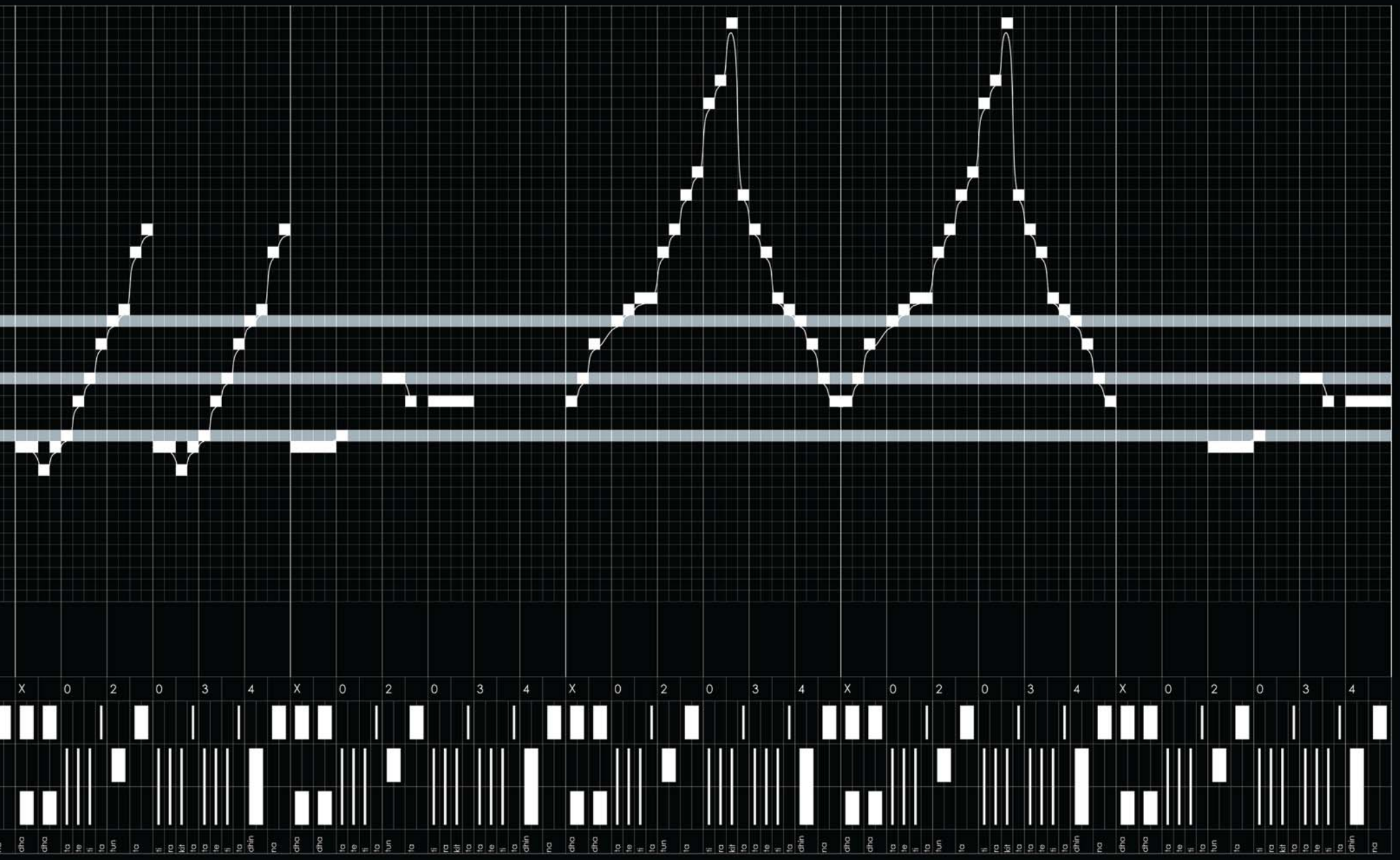
THE SARANGI

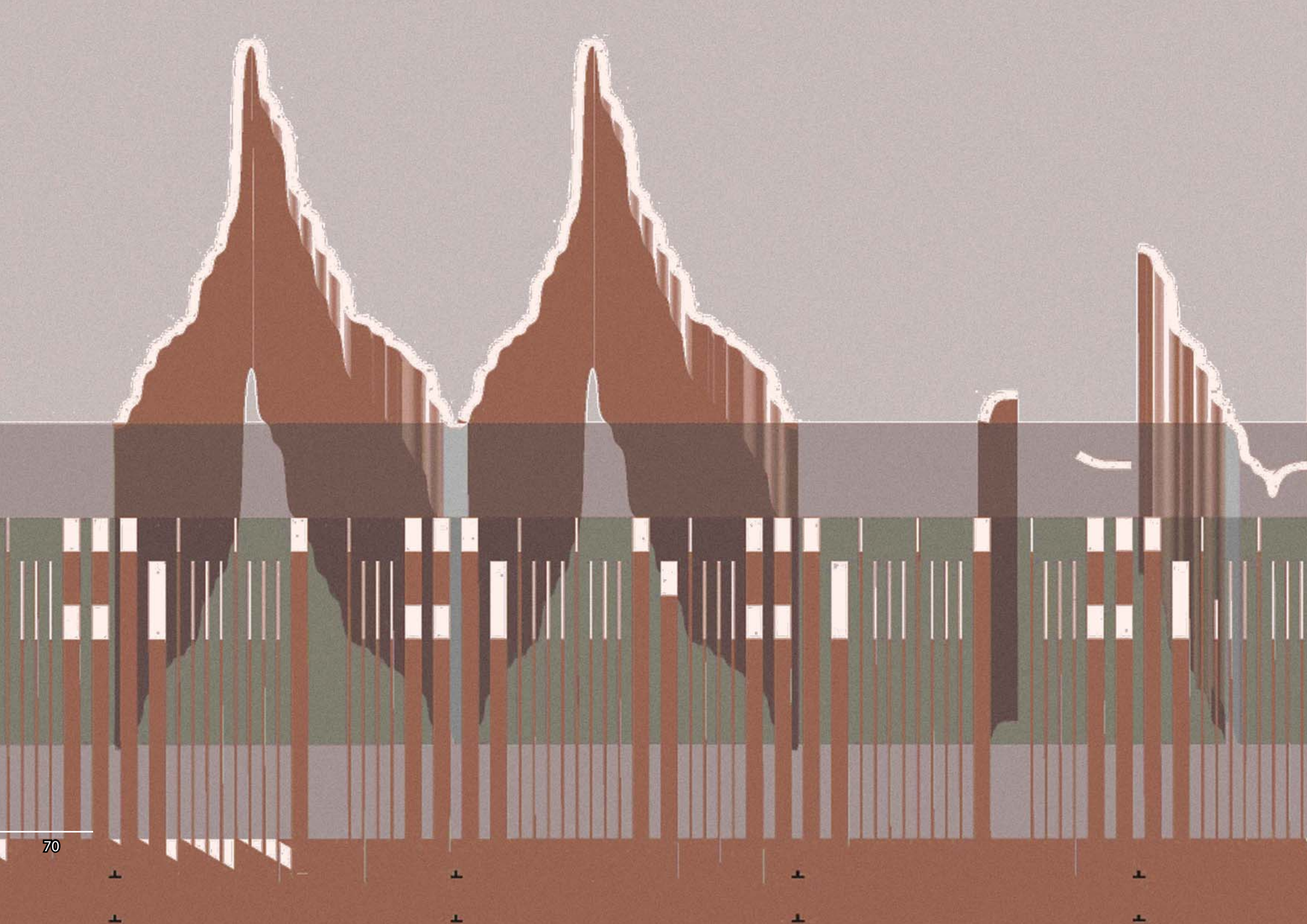
A bowed instrument of North India. The name translates as 'a hundred colours'.

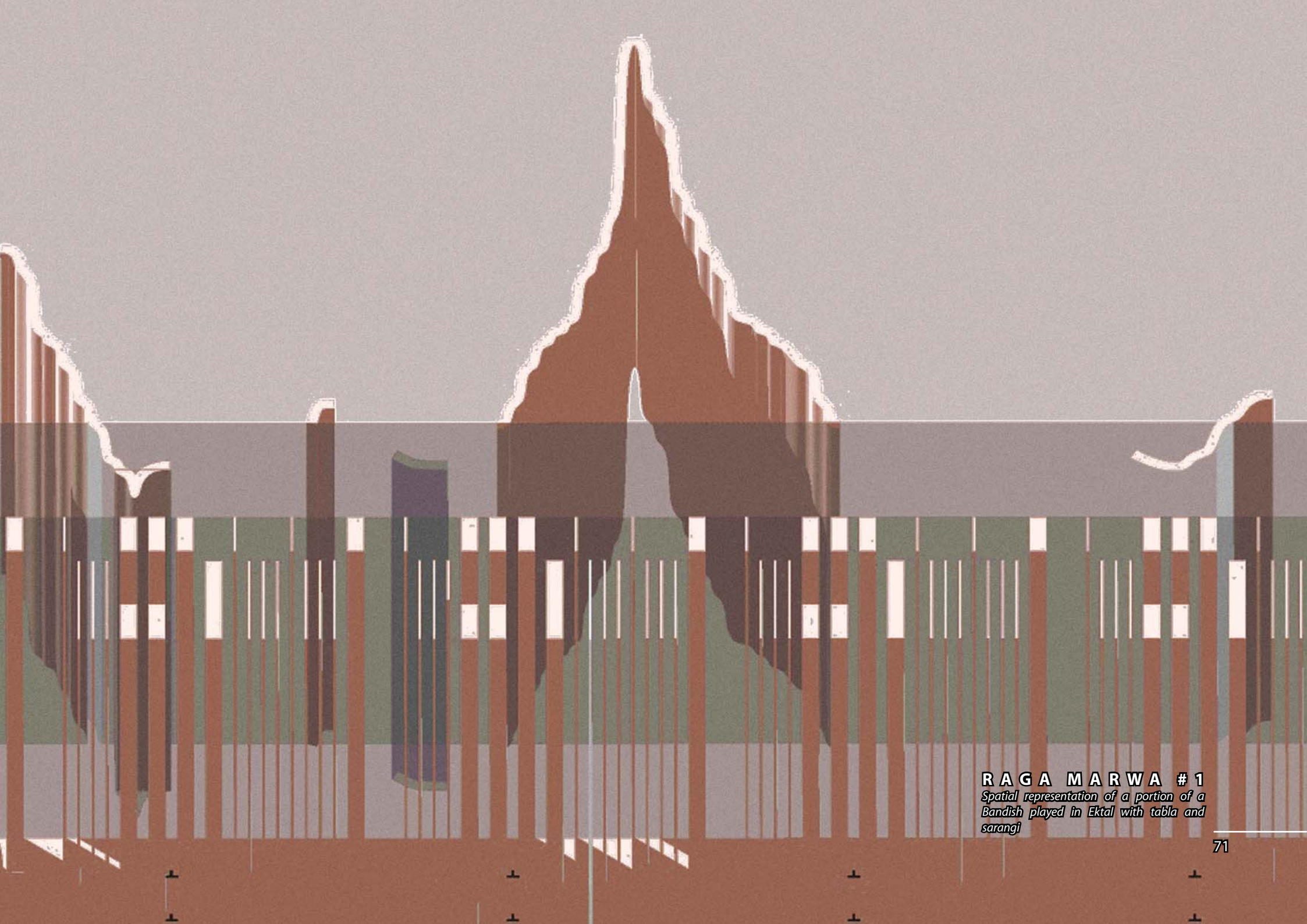


R A G A M A R W A

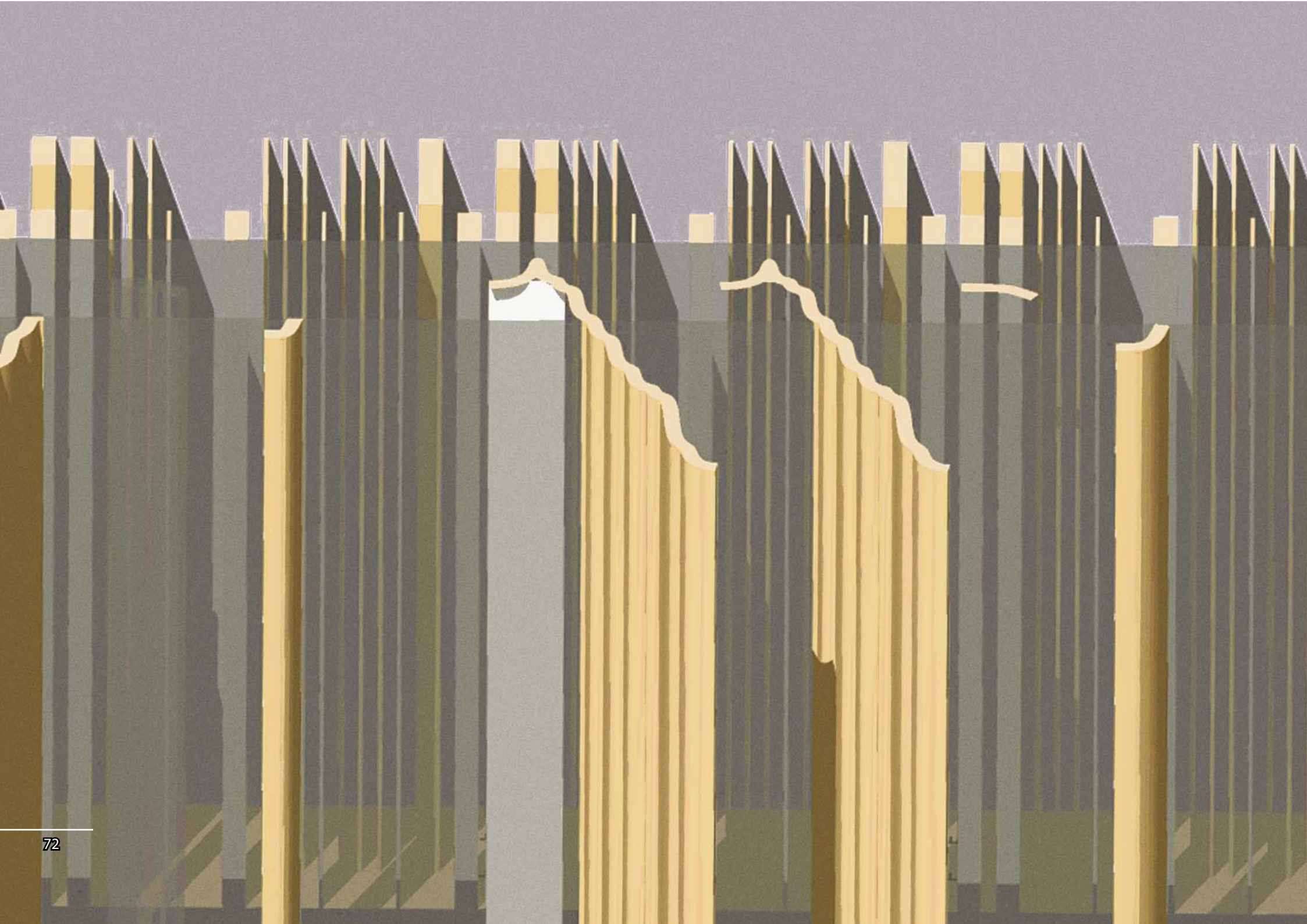
This is a graphic representation of a portion of Raga Marwa as played by Ram Narayan and accompanied by Anindo Chatterjee on tabla. Great care has been taken to represent a portion of the sound recording as acurately as possible. Pitch is represented vertically and time horizontally

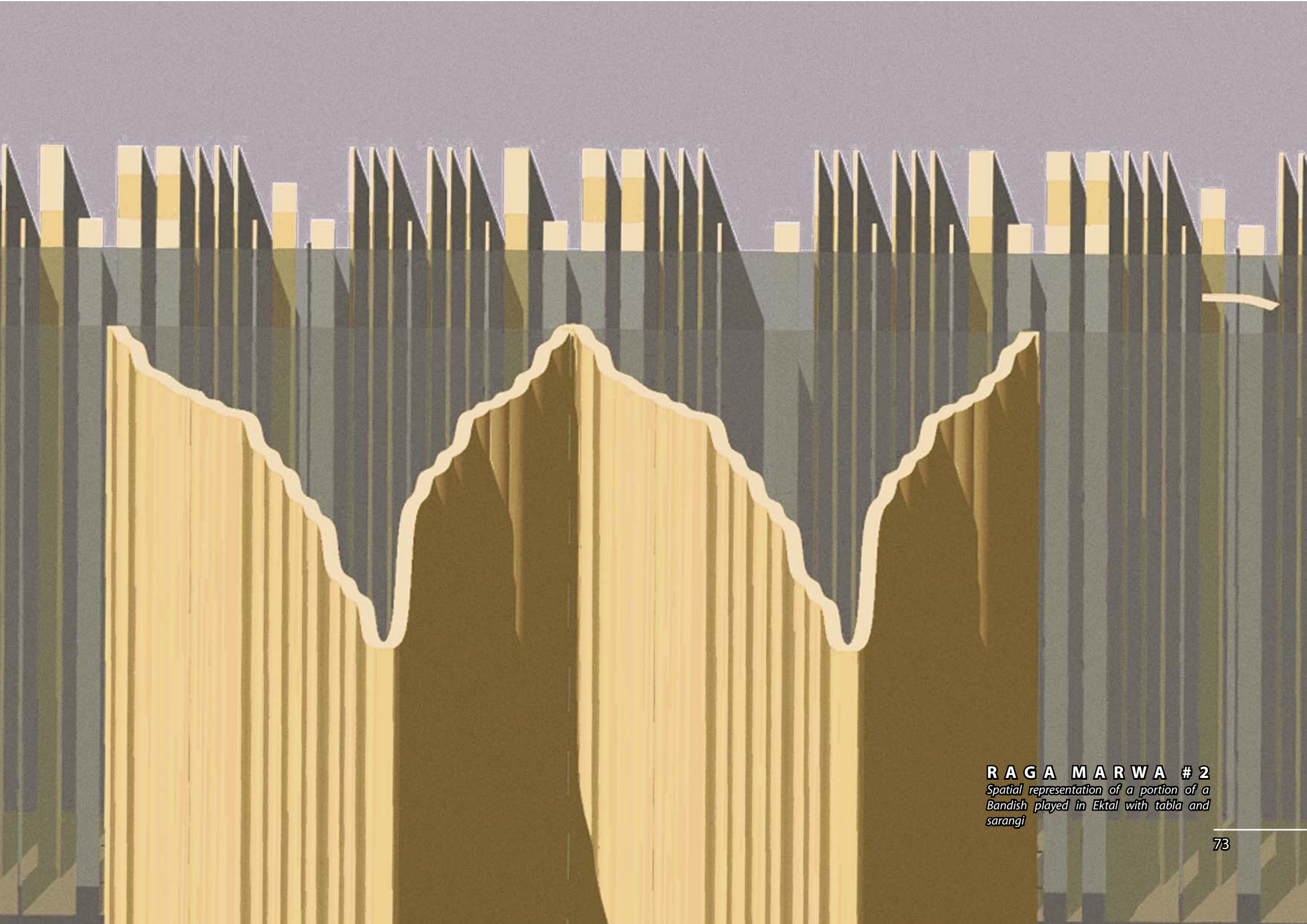

X 0 2 0 3 4 X 0 2 0 3 4 X 0 2 0 3 4 X 0 2 0 3 4 X 0 2 0 3 4
dha dha ta te ti ta tun ta ti ri kit ta ta te ti ta dhin na



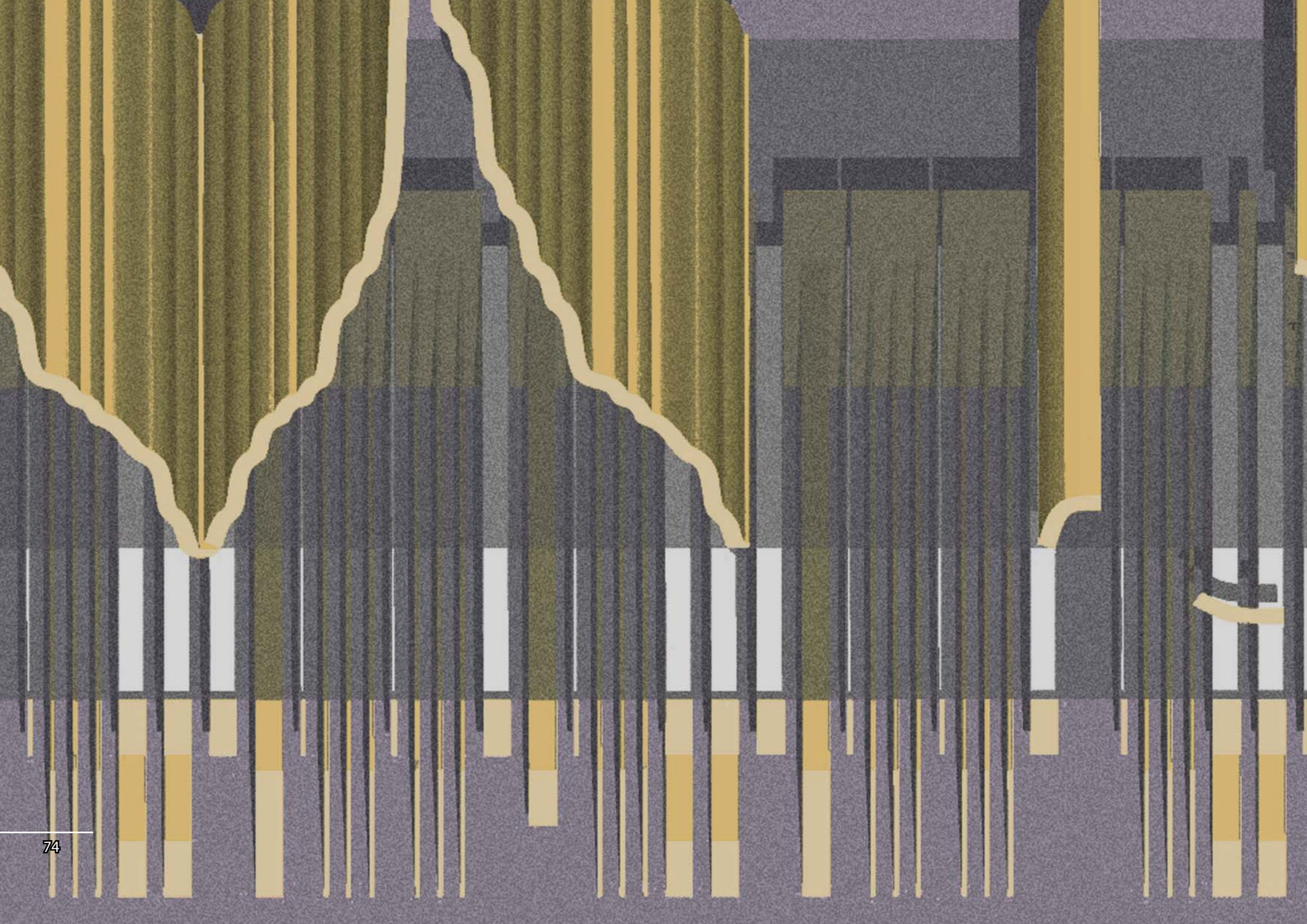


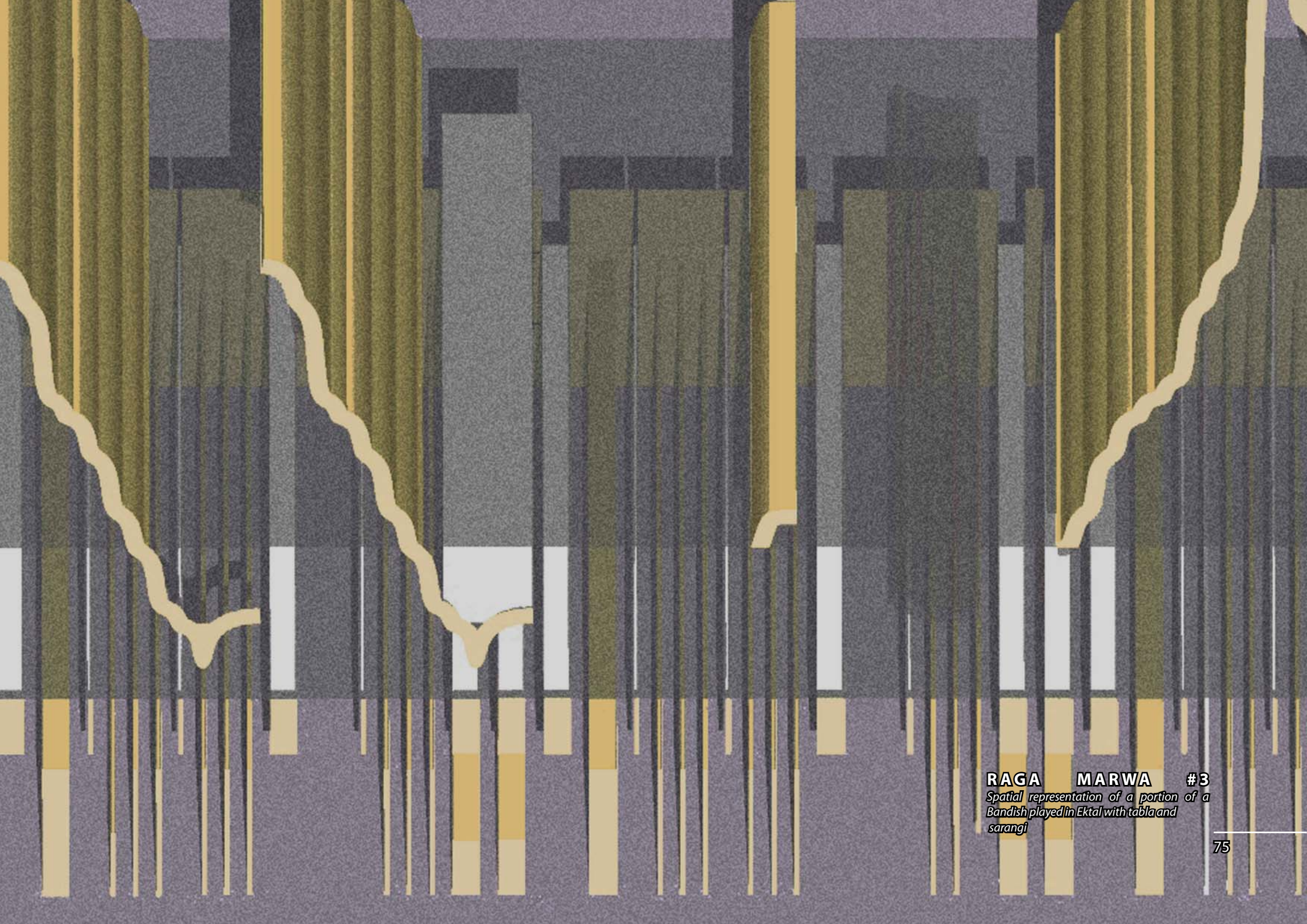
RAGA MARWA #1
Spatial representation of a portion of a Bandish played in Ektal with tabla and sarangi





RAGA MARWA #2
Spatial representation of a portion of a Bandish played in Ektal with tabla and sarangi

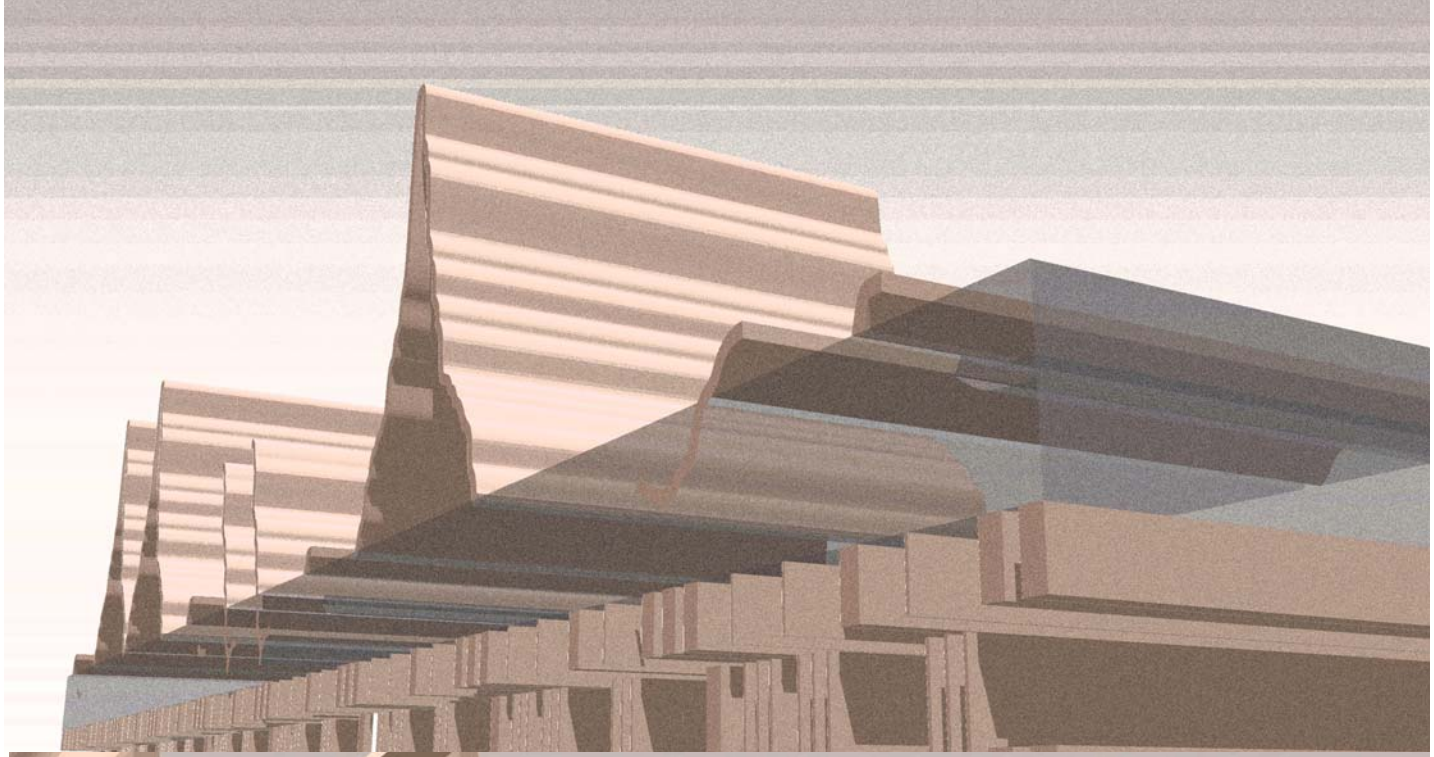


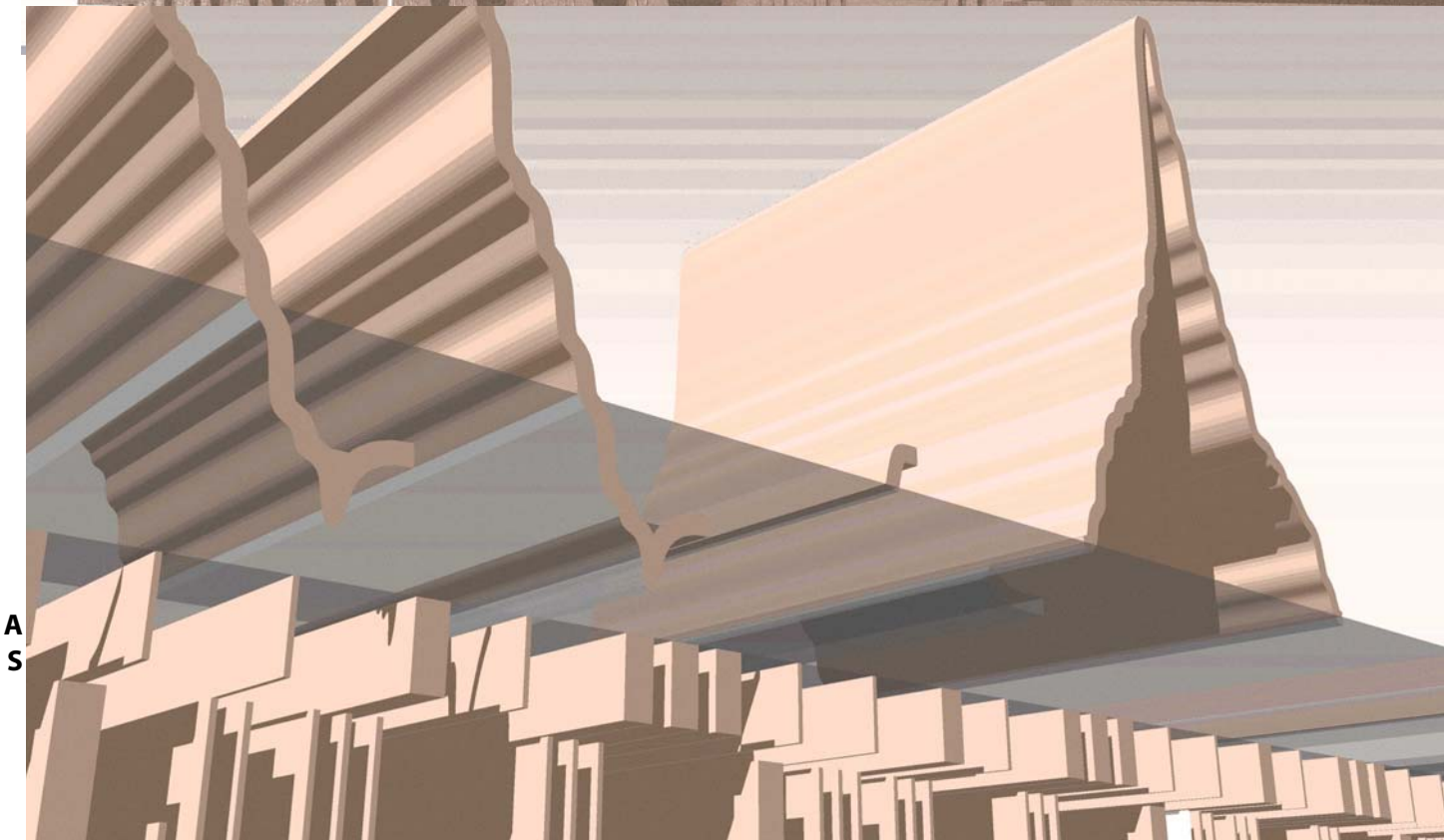


RAGA MARWA #3
Spatial representation of a portion of a Bandish played in Ektal with tabla and sarangi

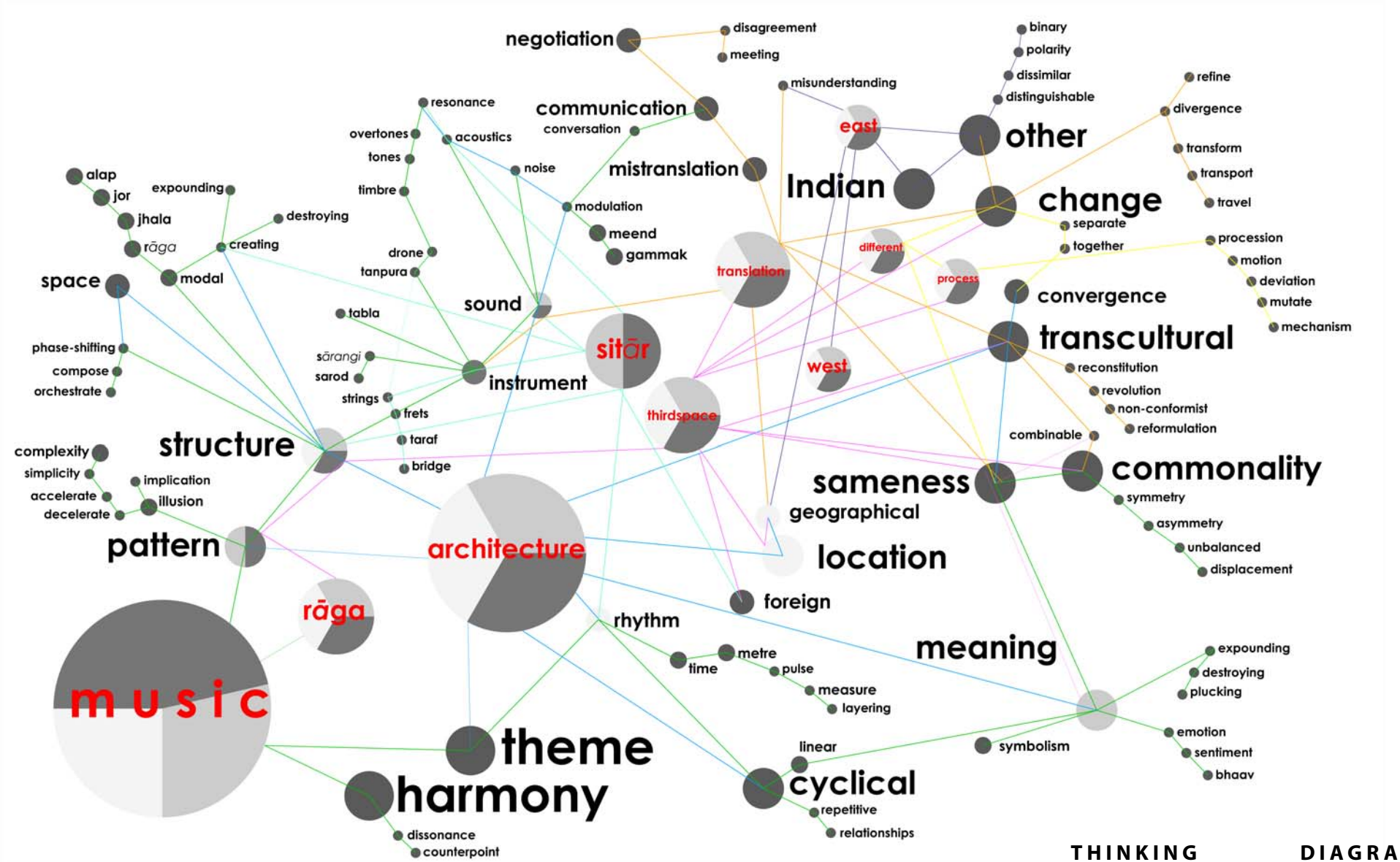


HEAD OF THE SARANGI
shows architectural qualities in the opening that receive the strings





R A G A M A R W A
P E R S P E C T I V E S



THINKING DIAGRAM

The thinking diagram shows a set of inter-related concepts that come out of the thinking of Raga and thirdspace. The idea here was to try and pin-point certain ideas as a chain of associated thoughts or concepts.

6 .DESIGN DEVELOPMENT

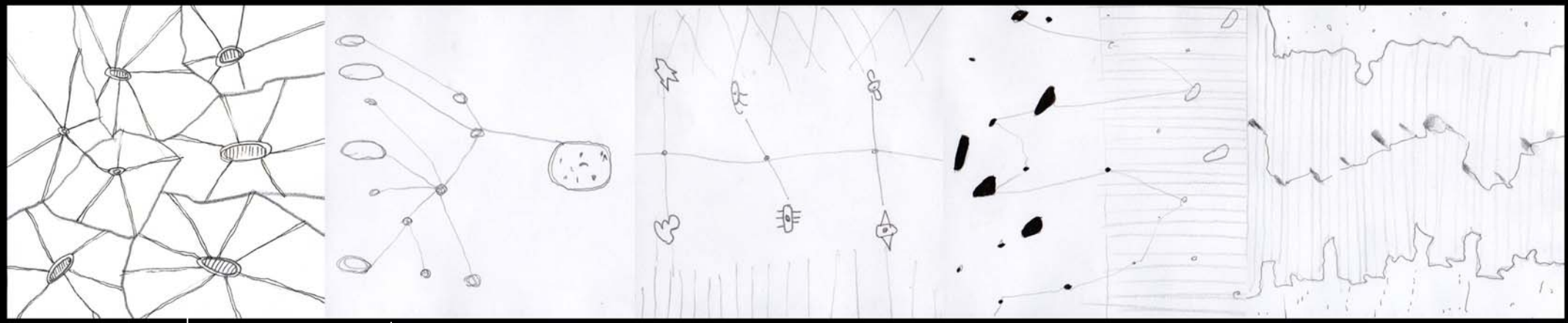
Programme, site and form, are the most common ways of thinking about what constitutes a piece of architecture. In approaching the design, the concept was to try and spatialise the connected ideas of Raga/thirdspace, which would then act as a spatial frame work that would negotiate the meeting of programme, site and form. The design was approached without the intention of achieving any sort of absolute answer, but rather to suggest a possibility of meeting, seeing, exchanging and reformulating. The desired outcome of the design would be to achieve a result which dwells partly in the realms of music, partly in the realms of architecture and also in some non-defined area.

The thinking diagram (facing page) was the starting point. It shows a set of inter-related concepts that come out of the thinking of Raga/ thirdspace. The idea here was to try and pin-point certain ideas as a chain of associated and interconnected thoughts or concepts. These concepts were then 'translated' into a series of sketches; the most successful of these were used to inform a further series of conceptual models.

In the process of drawing, certain recurring spatial ideas about Raga/thirdspace emerge. As a musician, I recognised this process as being particularly allied to improvising music where one is required listen, understand, interpret and respond in a matter of seconds. When improvising alone, one has to have the ability to literally think with the instrument. There is also a balance between what is being created spontaneously and what is being recited from memory. The very same process was used in the production of the drawing and models, a process which could itself be likened to that of Raga/thirdspace.

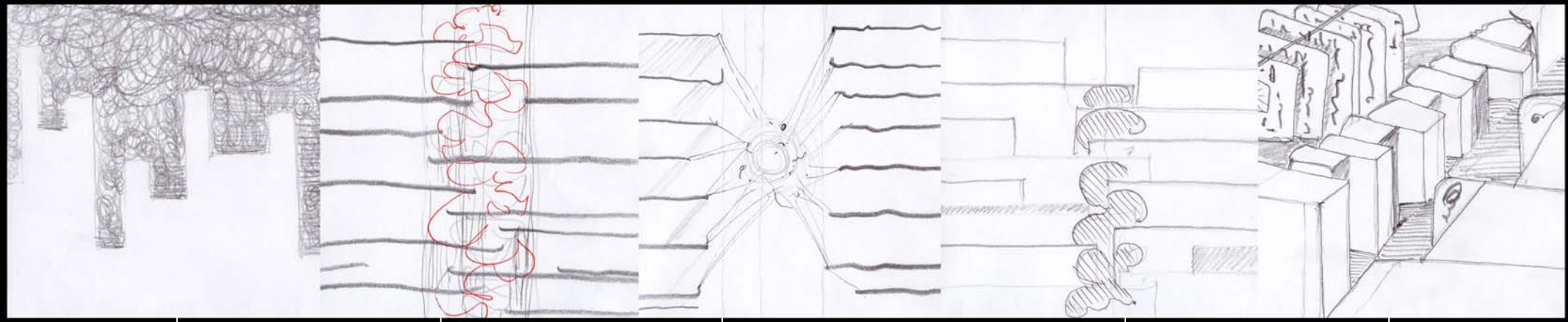
Raga tends not to focus on the product, or defining anything, but is more interested in the process of change, or rethinking a musical idea in as many ways as is possible within the given structure. The understanding of, and the adherence to the structure is key to the improvisational freedom. It is primarily in this spirit that the design has been undertaken.
With any luck, it will be the simple and complex spatial thinking behind the Raga/thirdspace that would allow for the formulation of such a structure that could so poetically recombine the elements at play in Yeoville and beyond.

CONCEPTS OF THIRDSPACE



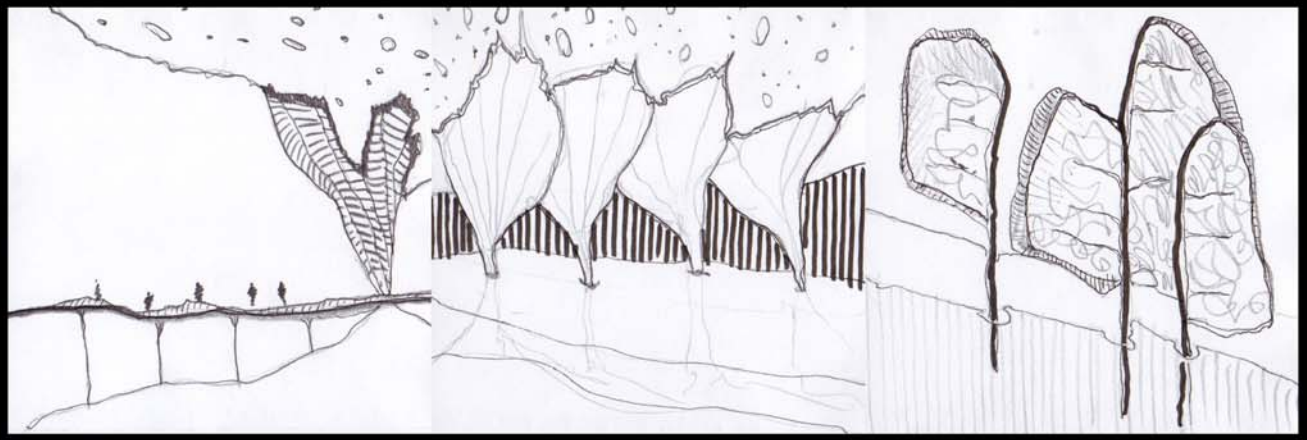
HYBRID, a new entity resulting from the combination of different elements

TRANSLATION, to move meaning from one knowledge base to another

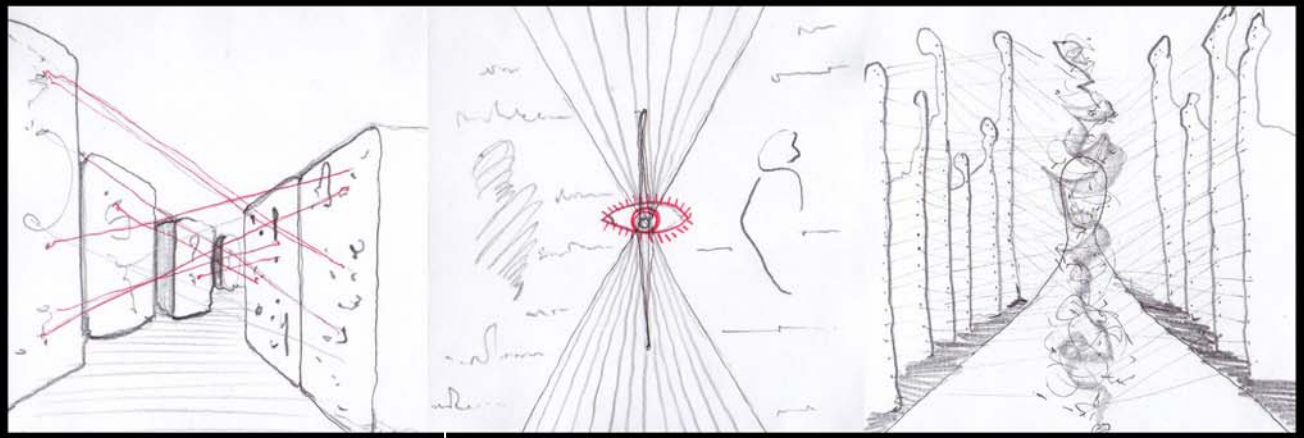


NEGOTIATION, a two-way process whereby a new outcome is agreed upon

RECONSTITUTION, to provide with a new structure

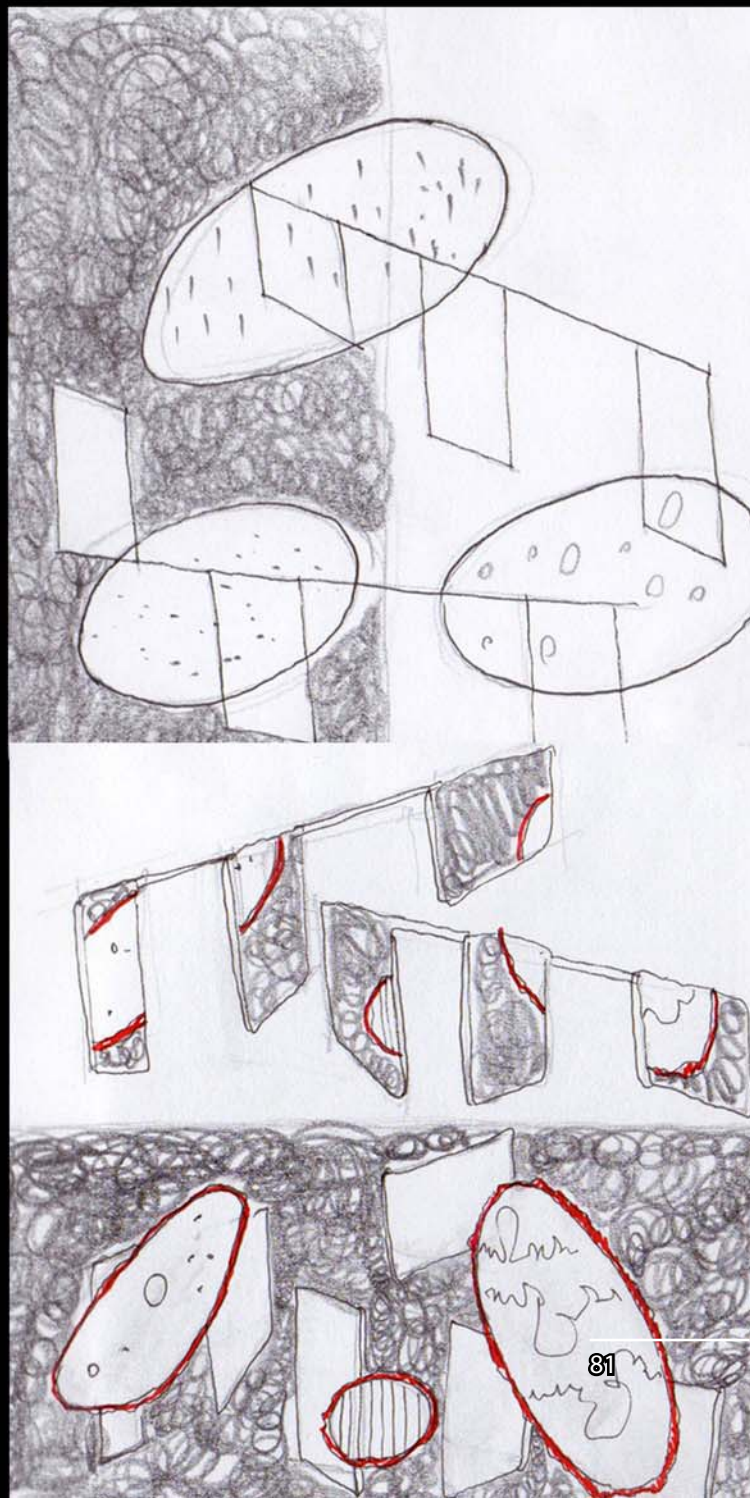


CONNECTION, multiple elements of complexity connecting differing perceived realities

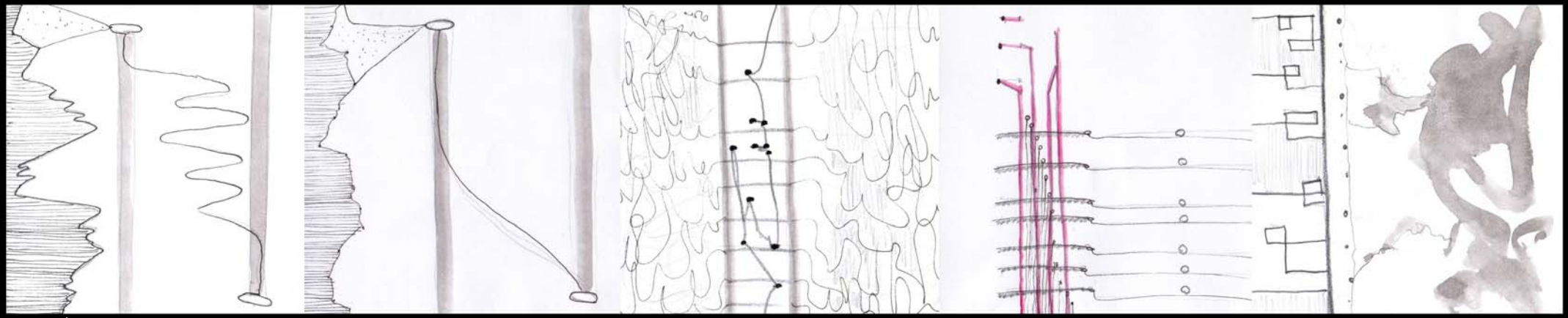


TRANSCULTURAL, moving meaing across perceived cultural boundaries

RECOMBINATION, *strategically reconstructing differing elements*



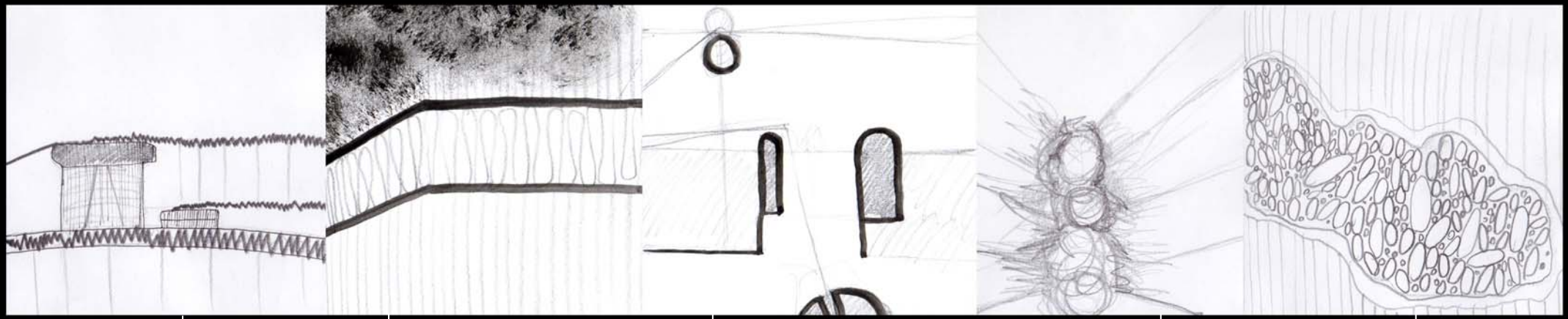
CONCEPTS OF SITAR



GAMMAK, rapid pulling of a note to produce oscillating effect

MEEND, gliding from one note to another

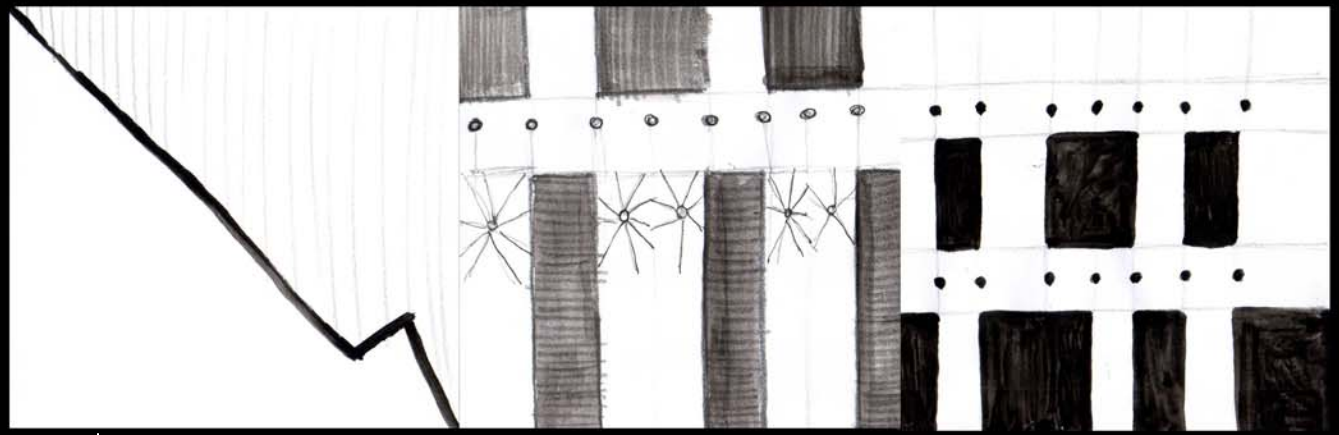
MOTION, rounded movements associated with sitar technique



TARAF, relationship between stopped string and sympathetic resonance

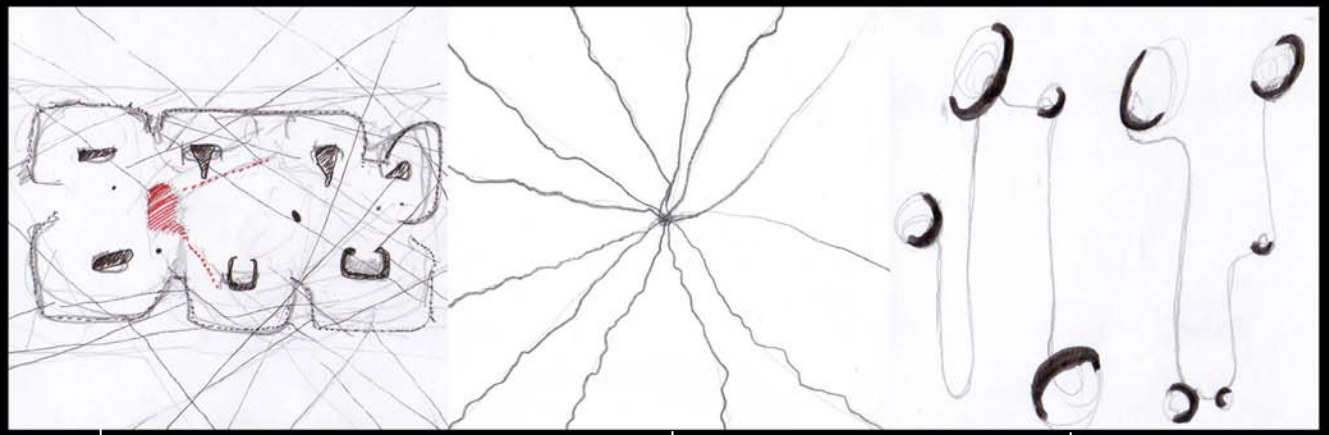
MECHANISM, method of attaching sympathetic string to instrument

CONTAIN, keeping musical phrases within a specific context



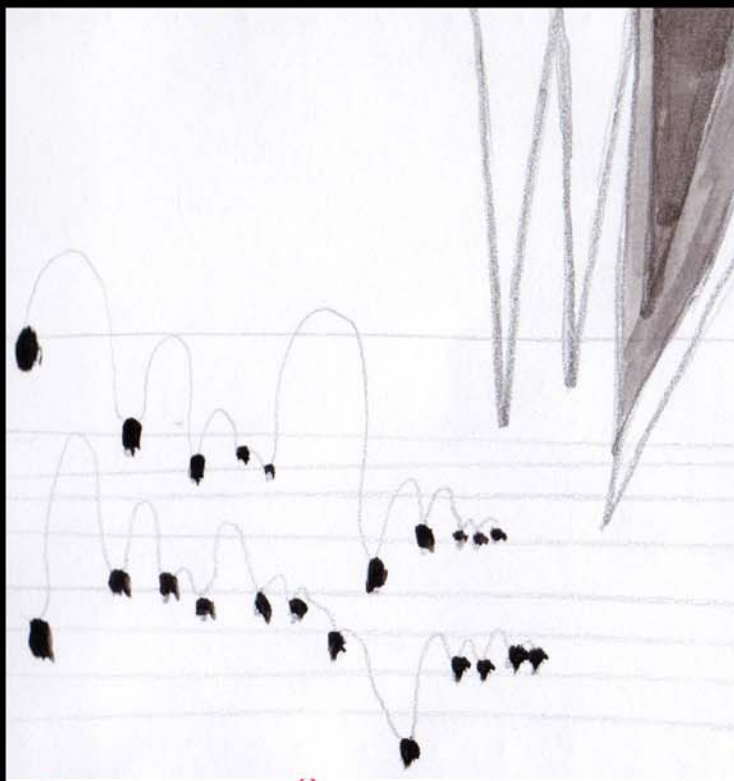
TARAF, the resonating sympathetic string s

VADI:VAVADI, vadi is the leading note of the Raga, vavadi causes the purity of the Raga to disintegrate



EXPOUND, *rendering endless musical possibilities within a Raga*

TANA, *specific musicial phrase, usually played very quickly, and represents the musician's creativity within a given structural framework*





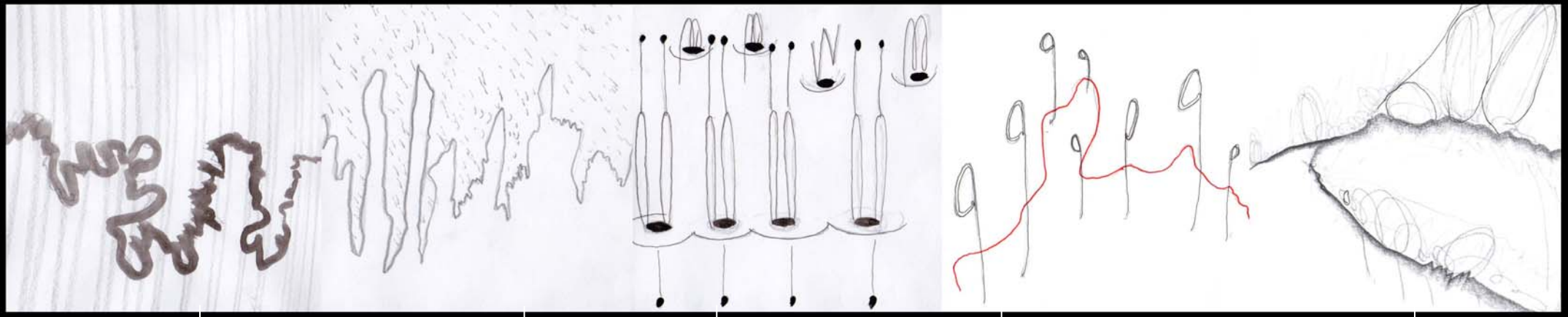
RAGA

CONCEPTS OF



CHALAN, to stir emotion in musical phrasing, usually an abreviation of the Alap, where the key phrases of the Raga are expressed

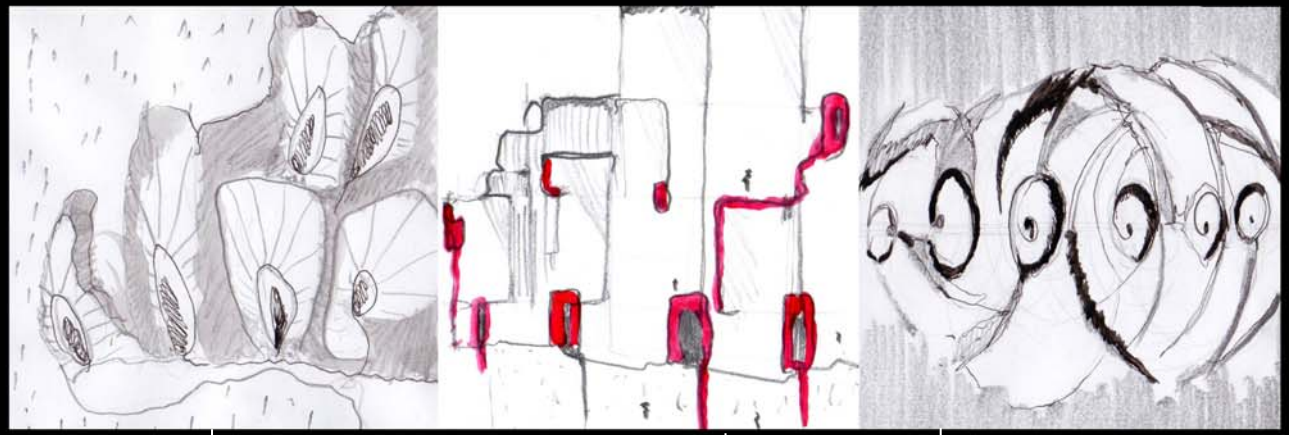
MEEND, *gliding from one note to another*



ALAP JOR JHALA, the structure of the Raga

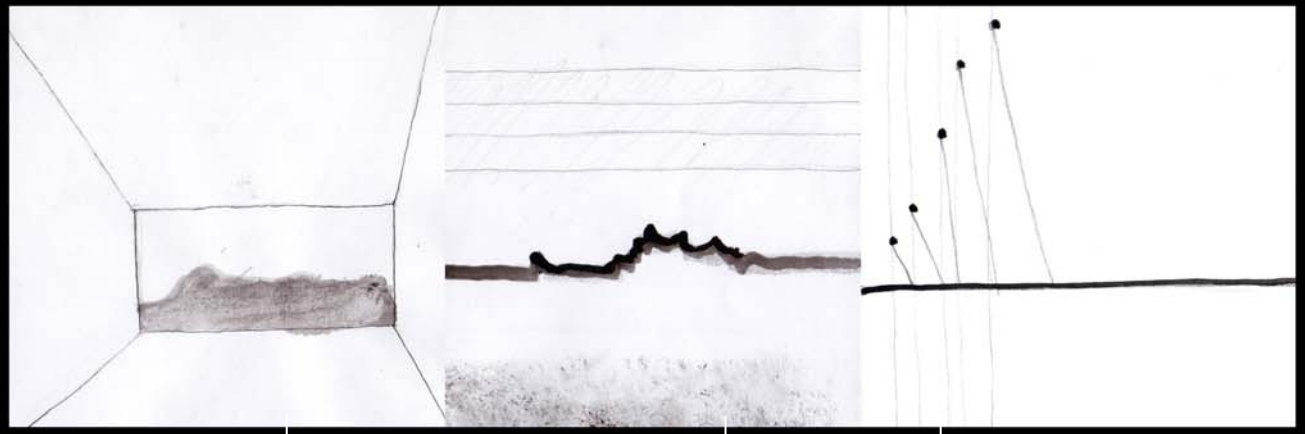
TEENTAL, rhythmic cycle of 16 beats symetrically divided 4 + 4 + 4 + 4

VADI: SAMAVADI, *hierarchy of notes in a Raga*



EXPOUND, *rendering endless musical possibilities within a Raga*

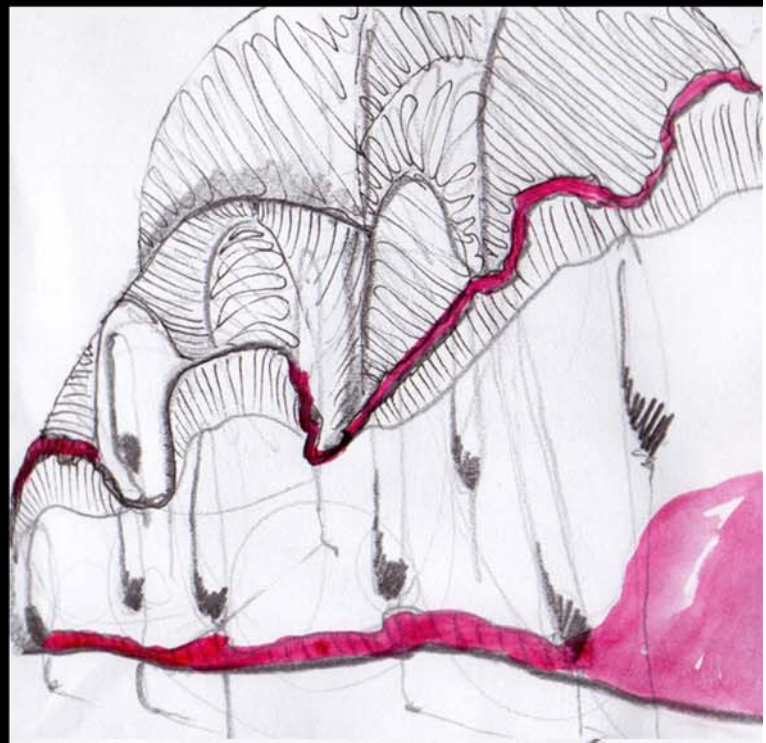
RESONANCE, *sustained vibration*

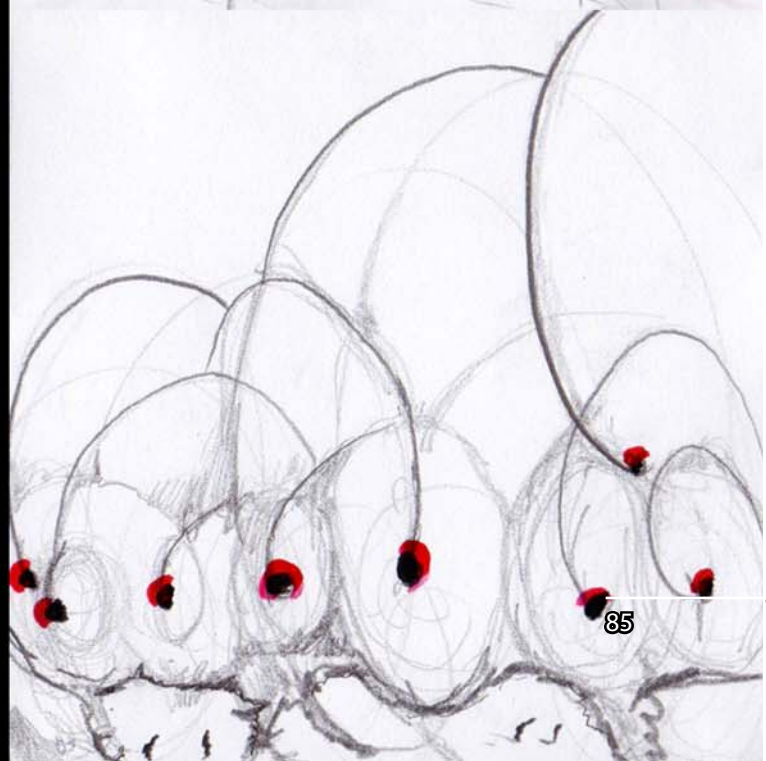


ALLUSION, *implication of a musical phrase*

DRONE, *sonic buzzing as the grounding for the Raga*

RESONANCE, *sustained vibration, causing similar objects to vibrate sympathetically*

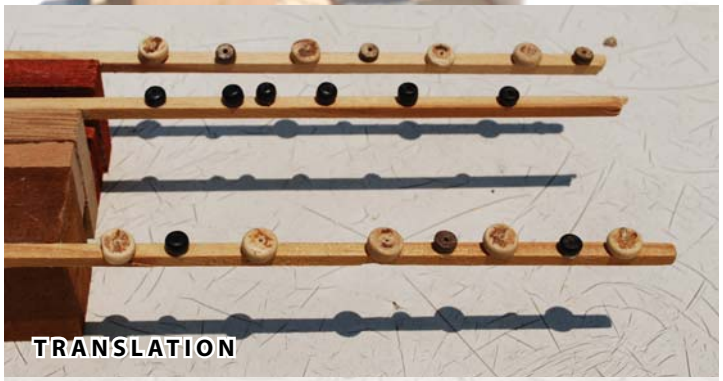




RECONSTITION
This model shows a position somewhere between instrument and Raga



RECONSTITUTION



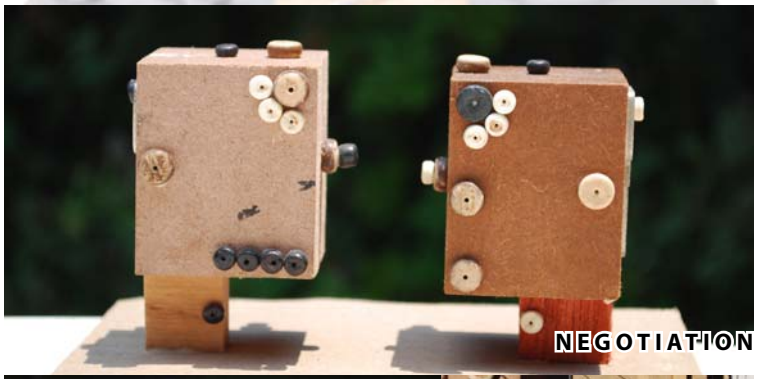
TRANSLATION



RAGA/INSTRUMENT ii



RENEGOTIAION



NEGOTIATION



NEGOTIATION



C O N N E C T I O N

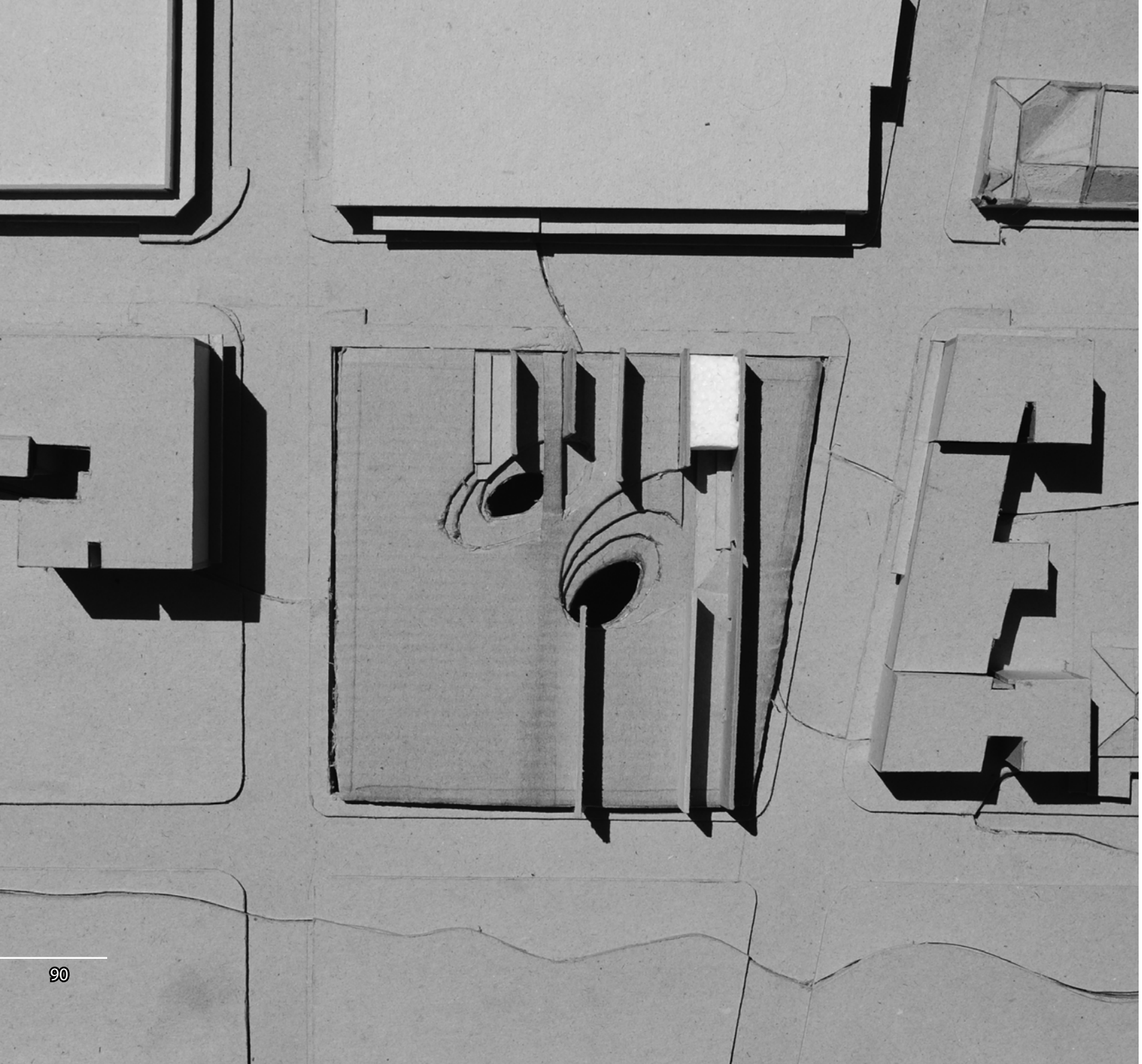
showing the the flow of ideas from one reality to the next



SKETCH MODEL I
shows the first gesture at creating a public courtyard around which the three main programmatic elements are positioned



SKETCH MODEL II
shows a concentration on the forms, conceptulising them as having a structural core. The rest of the building on the site mimics the high street typology.



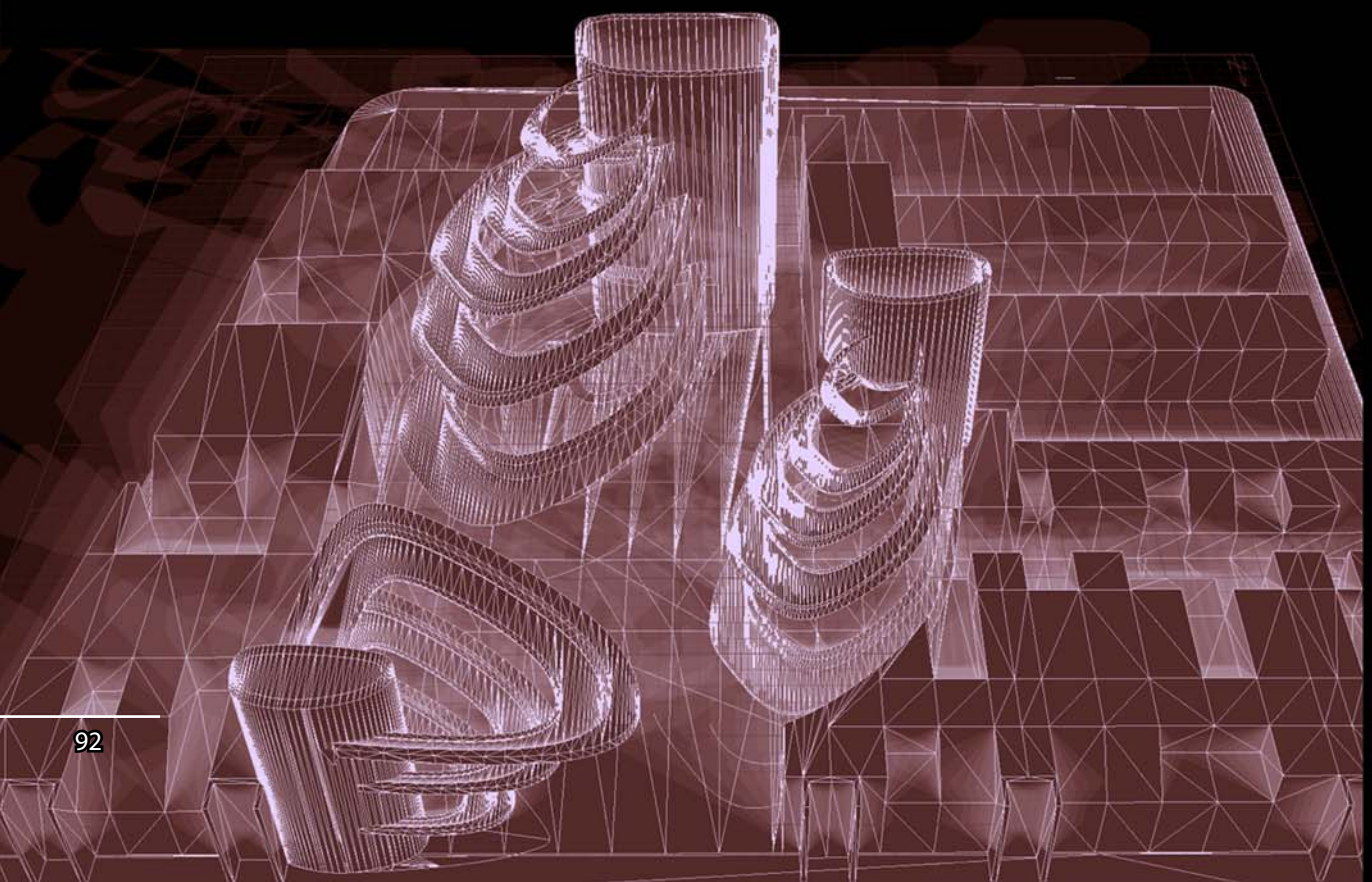
SKETCH MODEL III
shows the idea of the form being expressed by being cut into the ground and held together by structural wall that run north-south along the block

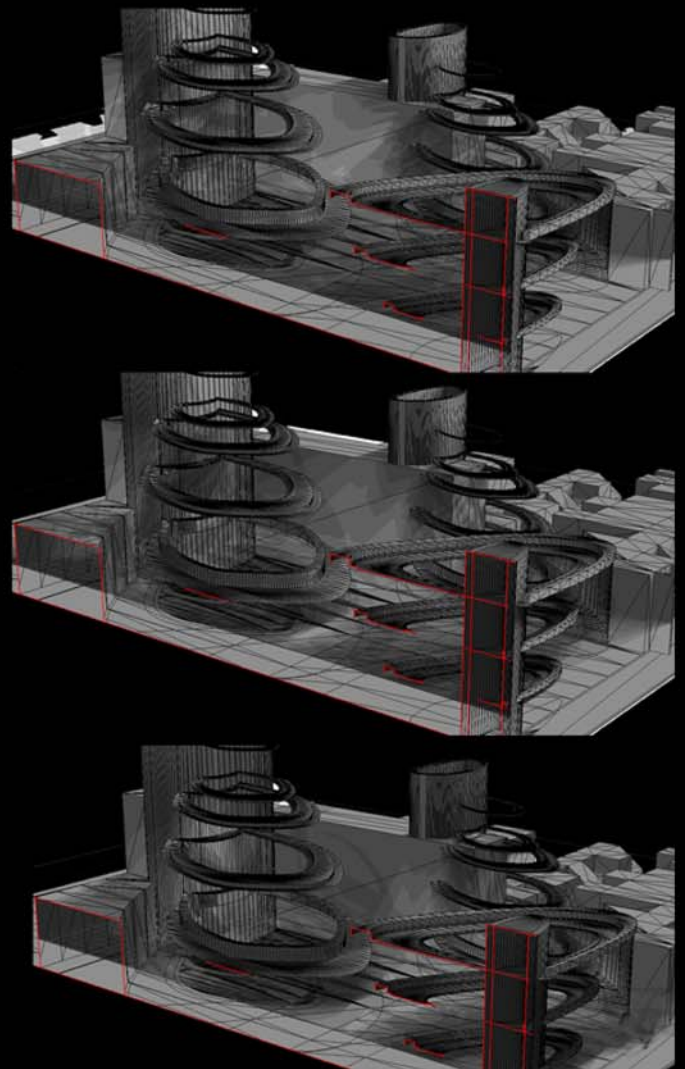


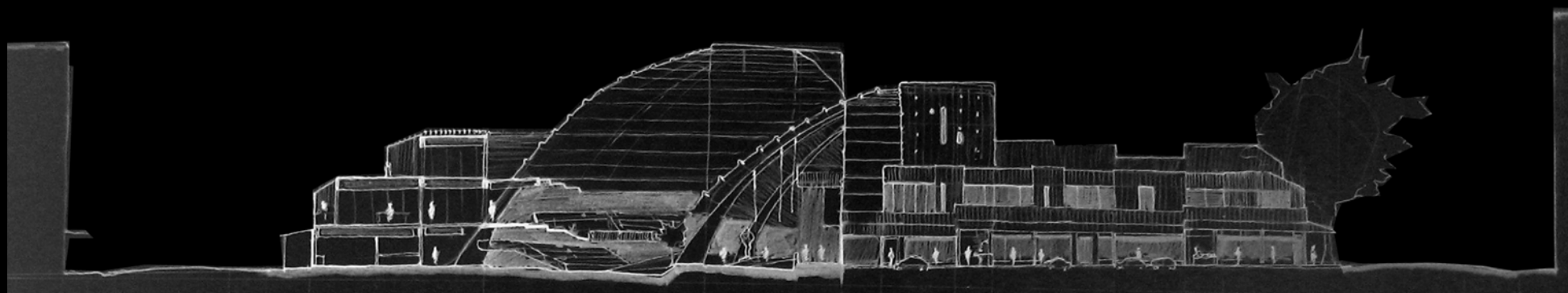
SKETCH MODEL IV
further development of the ideas of structural wall holding the three elements of the design, and the beginnings of the thin building along the perimeter of the site.

INITIAL DESIGN - DEVELOPING FORM

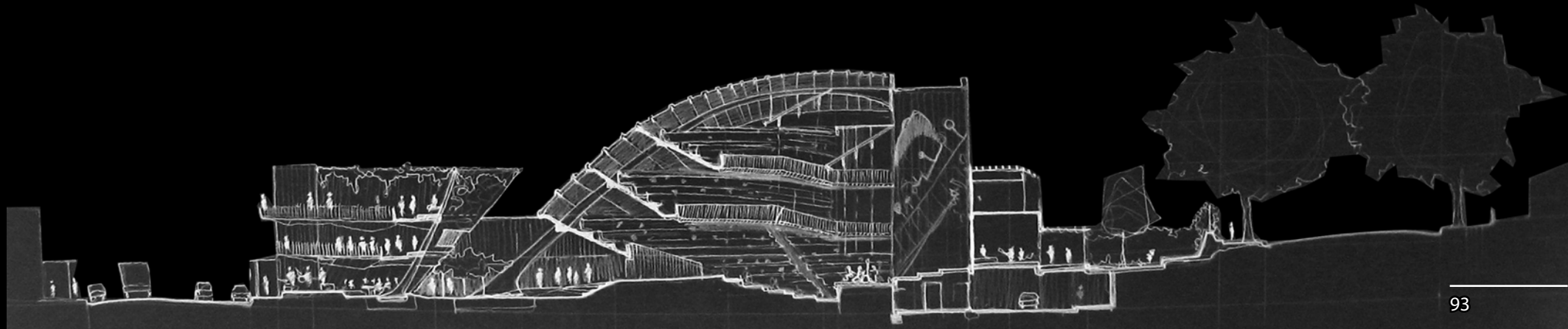
The initial response to the design was to investigate the way in which a rigid structure could hold three organic forms, representing the three improvised deviations in the structure of the Raga, correlating to the three components of the builing programme. The most challenging aspect was the resolution of the junctions between the forms and the governing structure. This arrangement and relationship as represented here could be seen as an exaggerated version of the design.



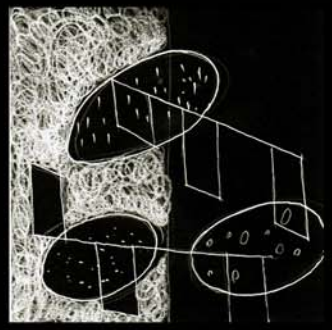
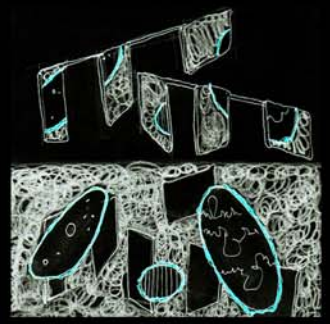


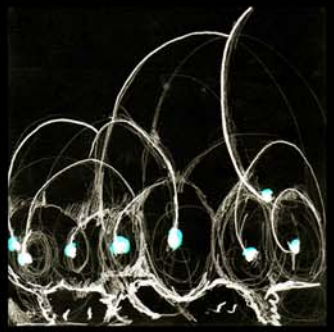


S E C T I O N / E L E V A T I O N , showing the facade along Raleigh Street and partial section through auditorium

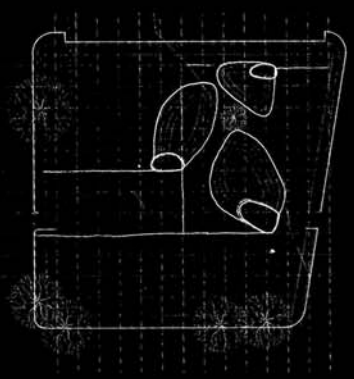
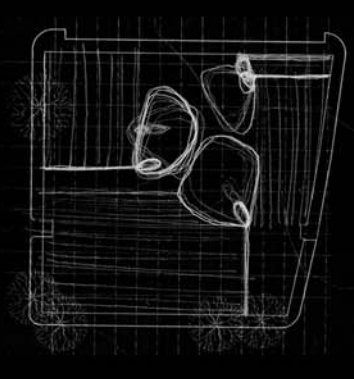
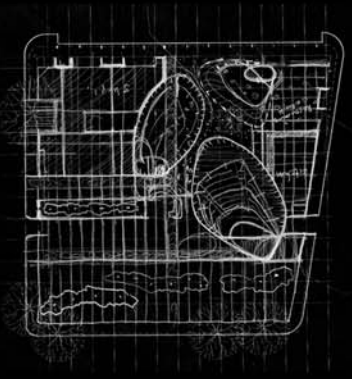


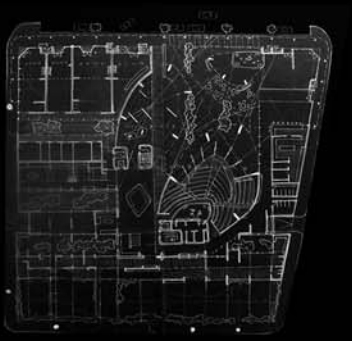
L O N G S E C T I O N , through the street performance component and the main auditorium



C O N C E P T S O F R A G A A N D T H I R D S P A C E



P L A N D E V E L O P M E N T A S T H R E E M U S I C A L D E V I A T I O N S





SKETCH MODEL V

the the main programmatic forms are shifted away from eachother towards the edges of the site, giving more space for the public courtyard. The site is now bound by a thin perimeter builing containing the inner workings.

DESIGN FOR YEOVILLE MUSIC CENTRE

The design for the Yeoville Music Centre is not the product of any one process or translation, but rather an improvisation within the given structures of the site (typology) and within the given structure of the programme. It is an amalgamation of the process of analysing the forms of the Raga, the tectonics of instruemnt, drawing the abstract ideas that come out of the Raga/thirdspace thinking and then modelling them.

Images from top to bottom:

1. Graphic representation of the Bandish from Raga Marwa

2. Portion of the ground floor plan of the music centre

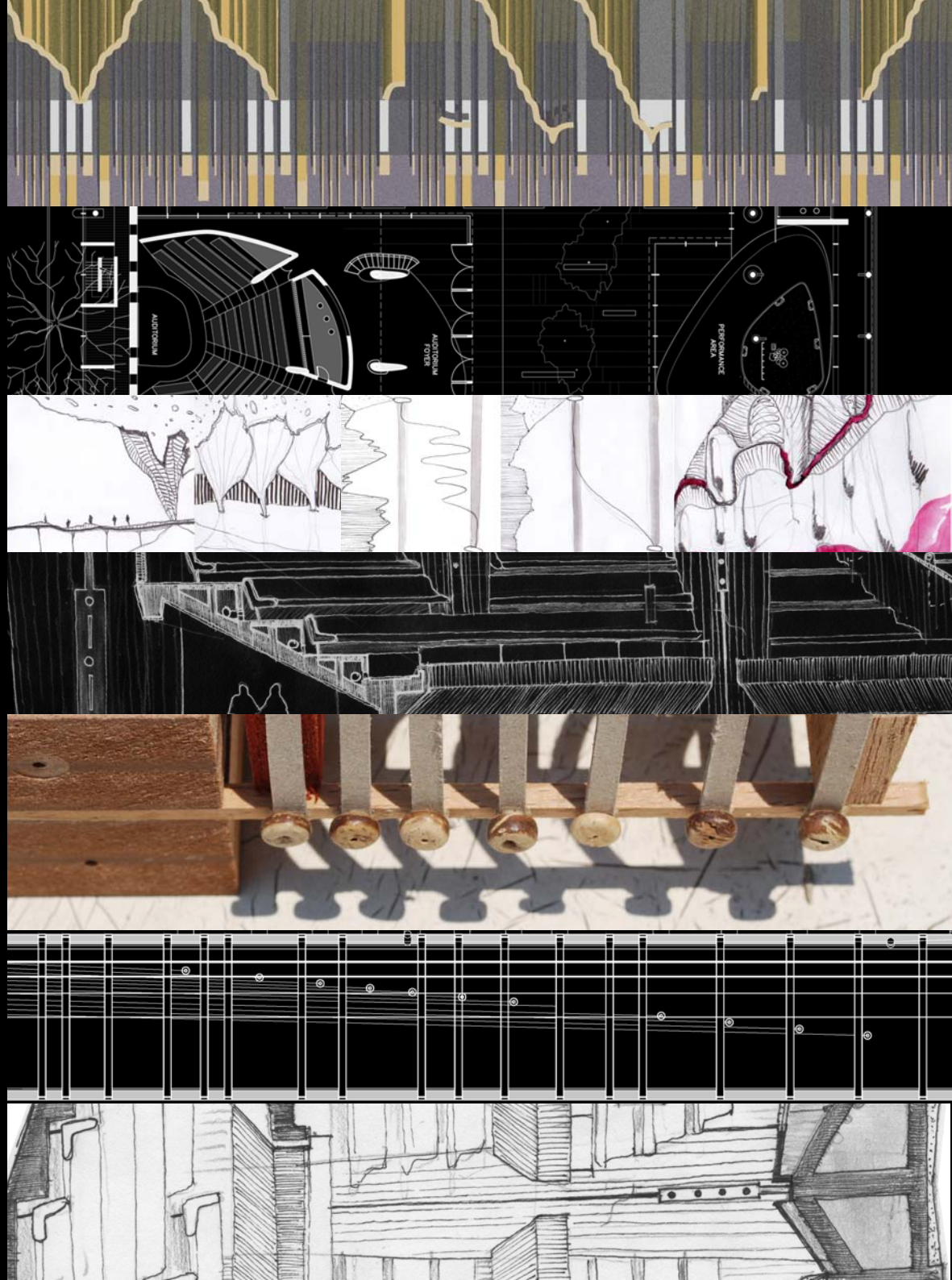
3. A series of drawings that capture the concepts of Raga/thirdspace

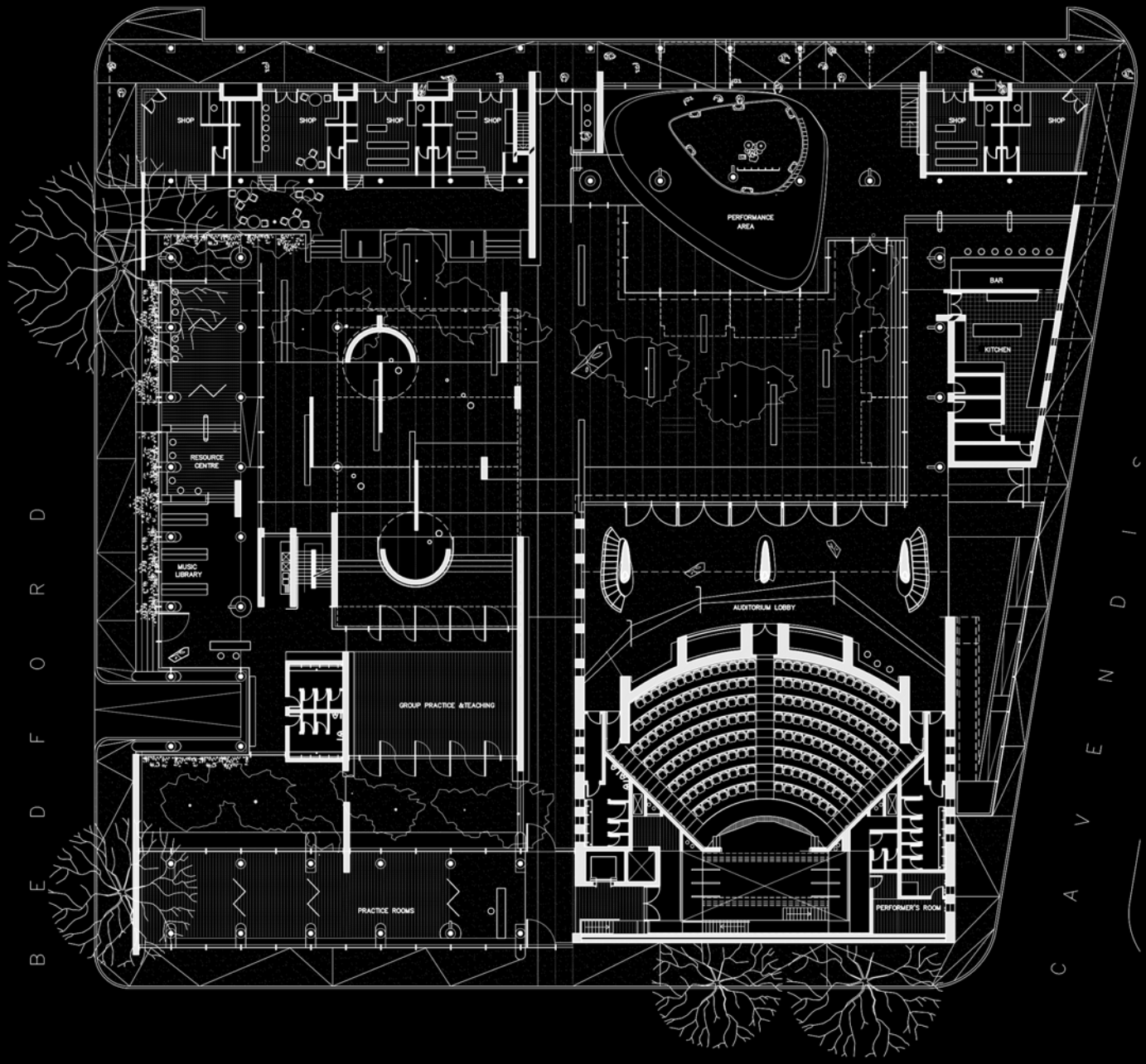
4. Portion of the section through the main auditorium

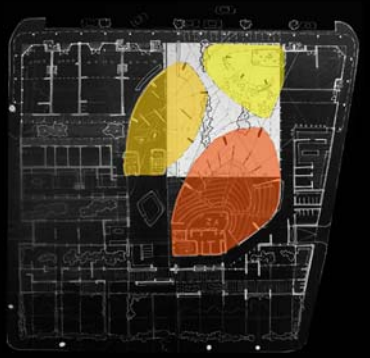
5. Detail of a model showing the concept of Raga

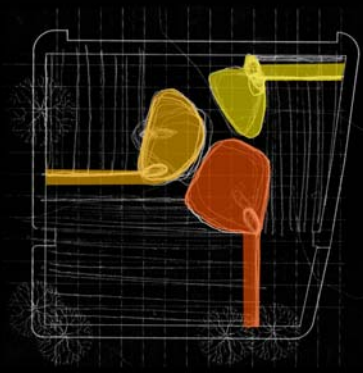
6. The neck of the sitar with frets, playing strings and sympathetic strings

7. Portion of the section through the main auditorium showing balconies attached to main structural support column

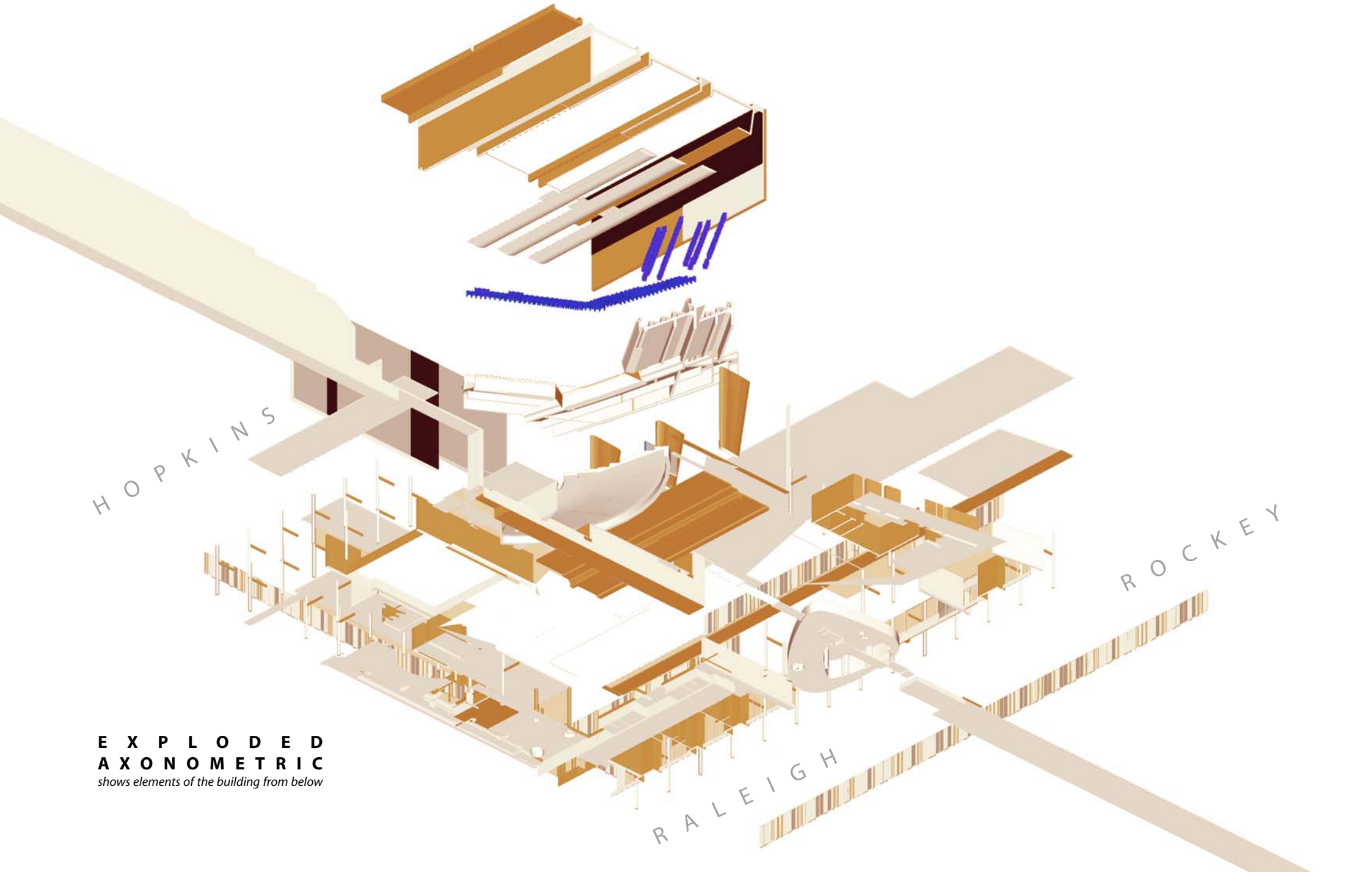



SHOP
SHOP
SHOP
SHOP
SHOP
SHOP
PERFORMANCE AREA
BAR
KITCHEN
RESOURCE CENTRE
MUSIC LIBRARY
AUDITORIUM LOBBY
GROUP PRACTICE &TEACHING
PRACTICE ROOMS
PERFORMER'S ROOM
B E D F O R D
C A V E N D I S









EXPLODED AXONOMETRIC

shows elements of the building from below



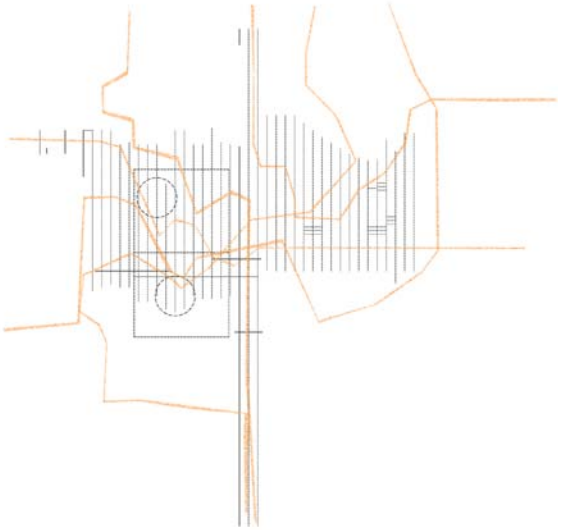
block perimeter contains elements

The perimeter of the block acts as the first point of reference and defines the outer limits of the site



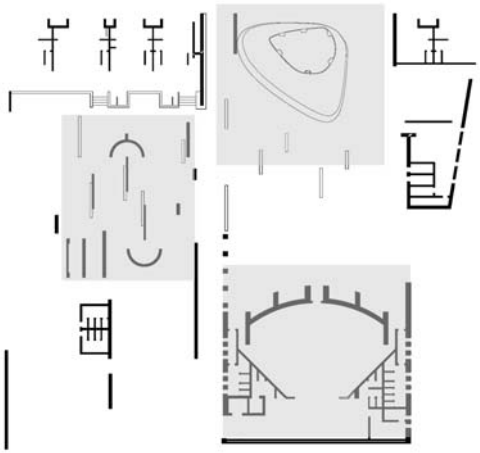
light column grid as establishing structure

A light column grid acts as an establishing structure, creating a permeable perimeter with a distinct rhythm



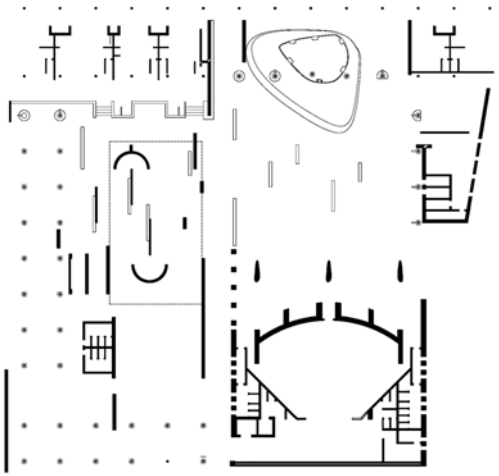
ground surfaces imply connections

Ground surfaces and elements above imply connections and create a sense of guided movement through the site, while still being free to meander at will



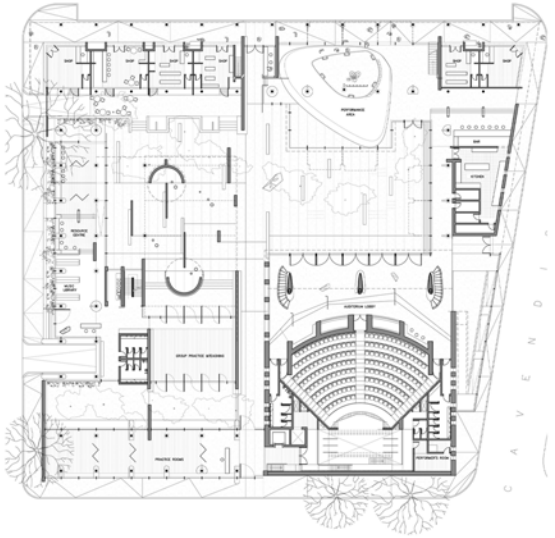
establishing three deviations

The introduction of walls establish three deviations, which are all versions of each other, and represent each component of the programme – this is also linked to the three movements within the Raga structure

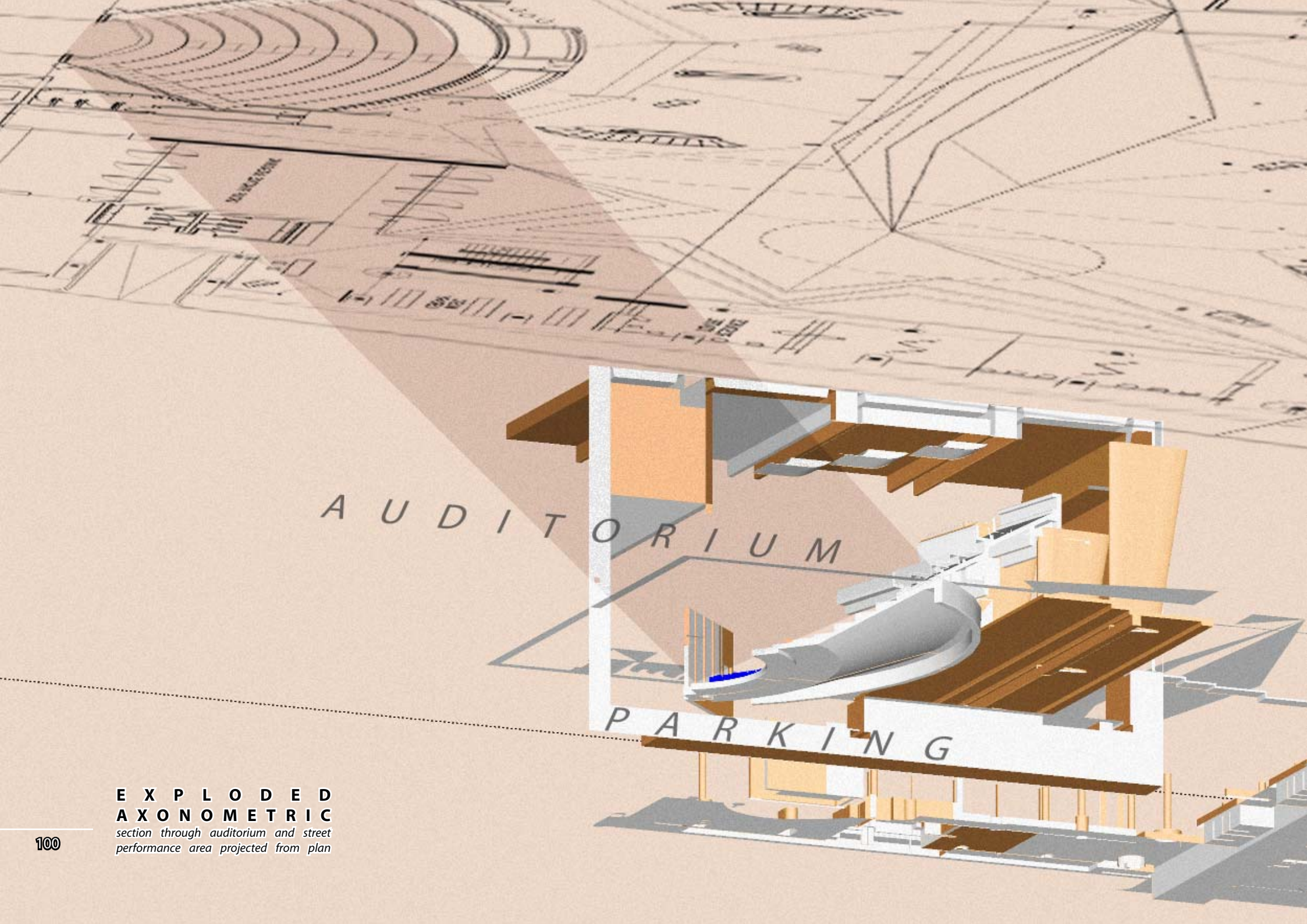


deviations within the structure

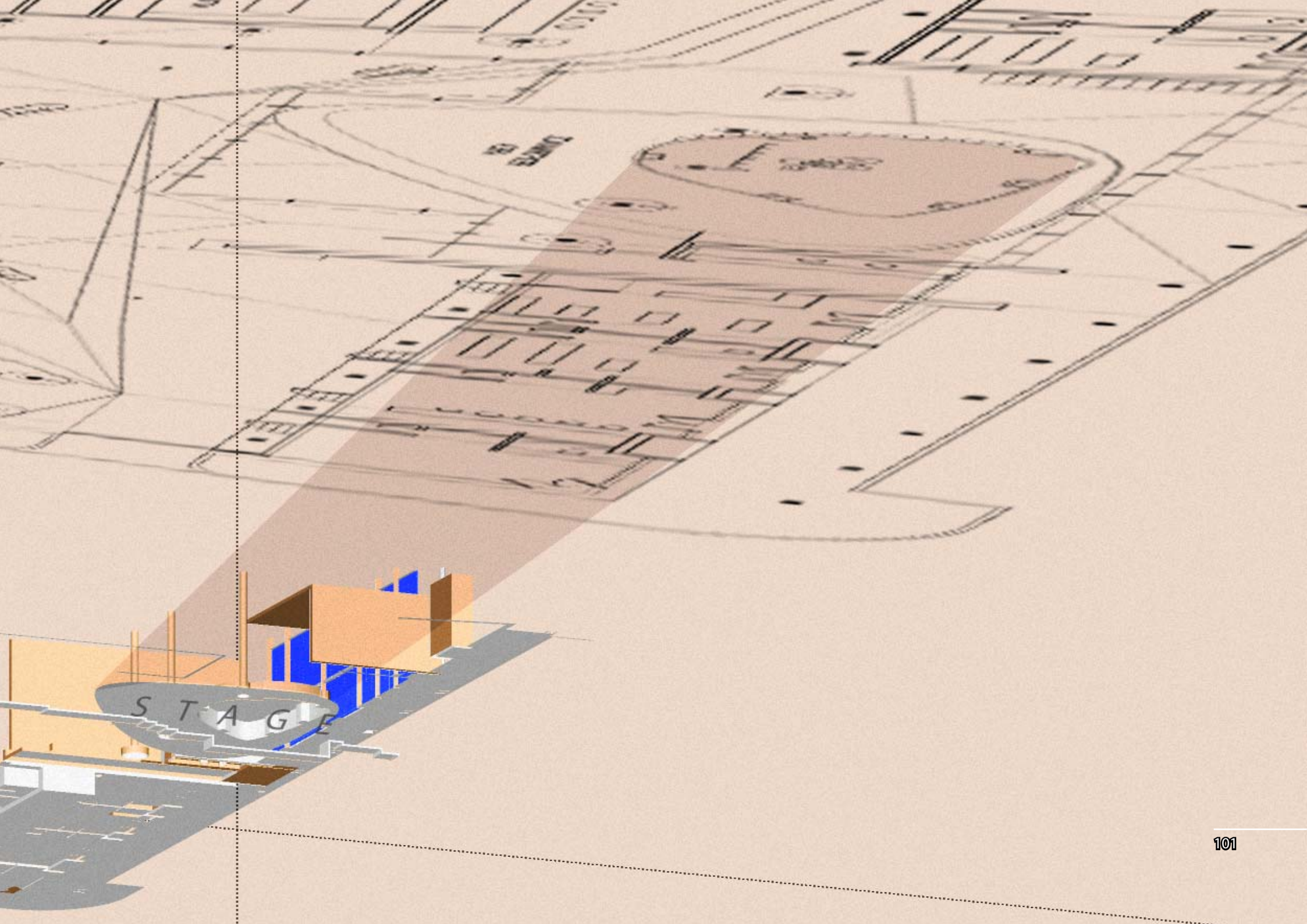
These deviations with the structure articulate spaces in the building, and together

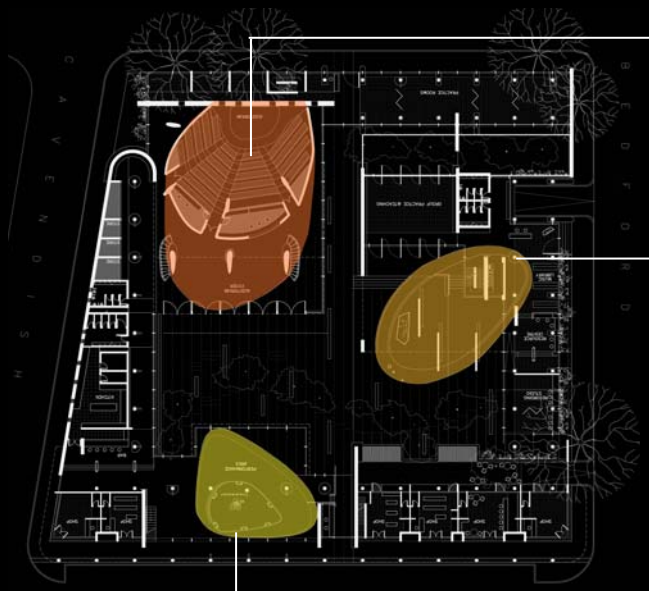


building complete



EXPLODED AXONOMETRIC
section through auditorium and street performance area projected from plan


STAGE



main auditorium, *seating 500 people*

music school, *built around a private courtyard with practive room toward the back of the site and facing the main teaching venue*

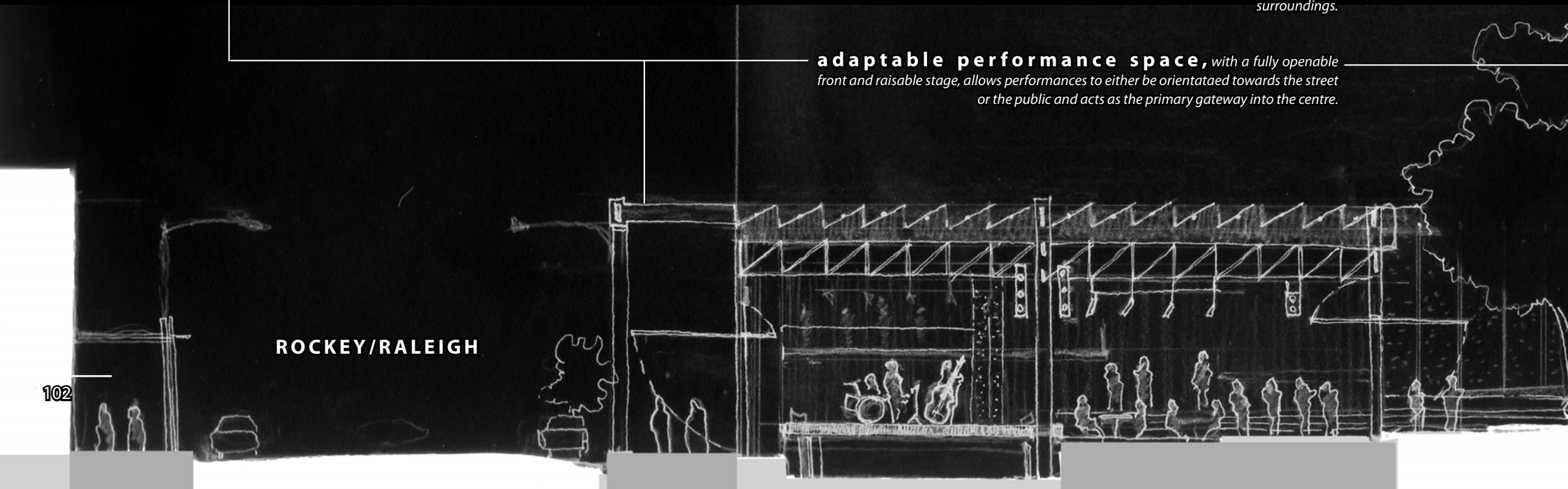
chamber music and exibition, *which is connected to the library and secoring facilities*

thin perimeter block, *aknowledges the edges of the site respondong to the Rockey/Raleigh Street typology. The edges are of site are permiable and gives over much of this block to the public.*

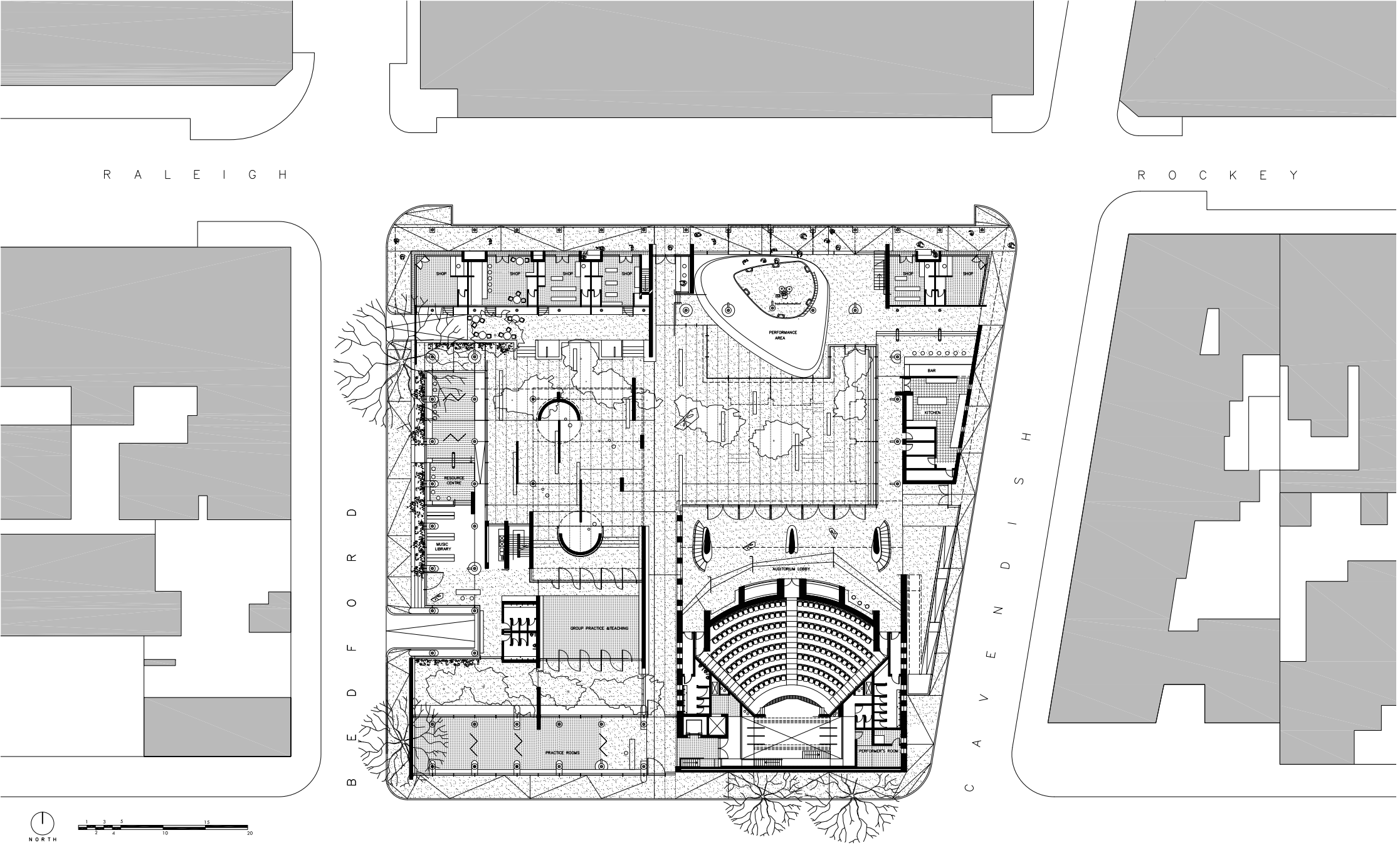
public courtyard, *links the three main components of the building programme together*

rentable shops, *create continuity along the high street which is critical to maintaining the its character as well as helping to meld the centre into the surroundings.*

adaptable performance space, *with a fully openable front and raisable stage, allows performances to either be orientataed towards the street or the public and acts as the primary gateway into the centre.*







ground floor plan

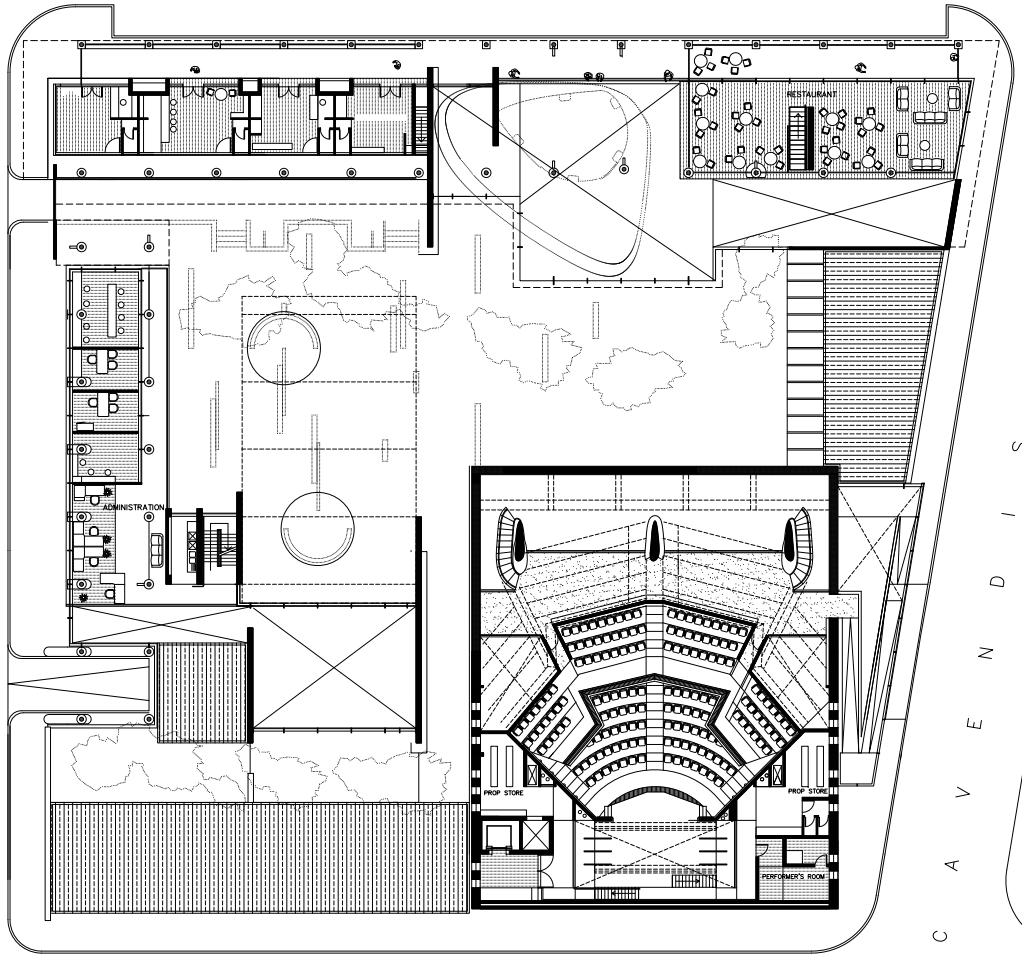
scale 1:200

R A L E I G H

R O C K E Y

B E D F O R D

C A V E N D I S H

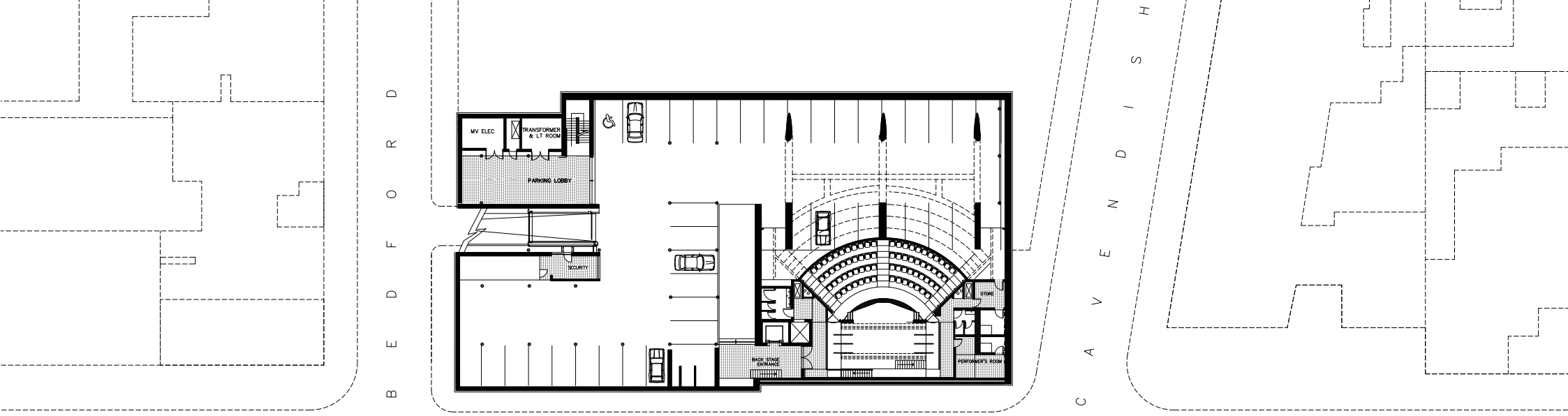


NORTH

1 3 5 15
2 4 10 20

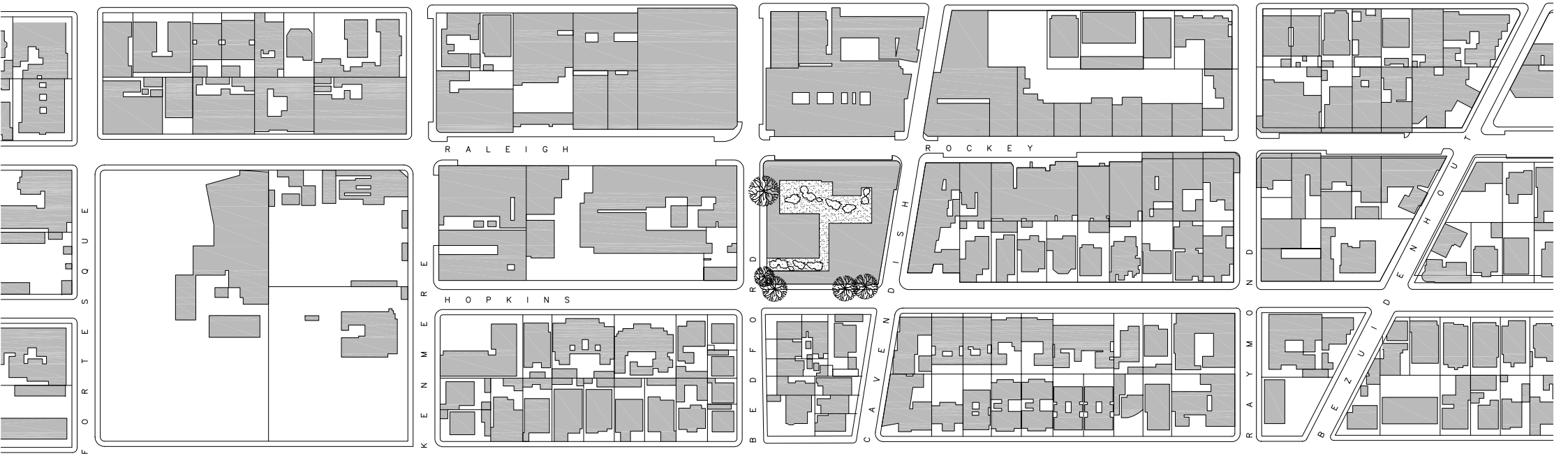
u p p e r l e v e l p l a n

s c a l e 1 : 2 0 0



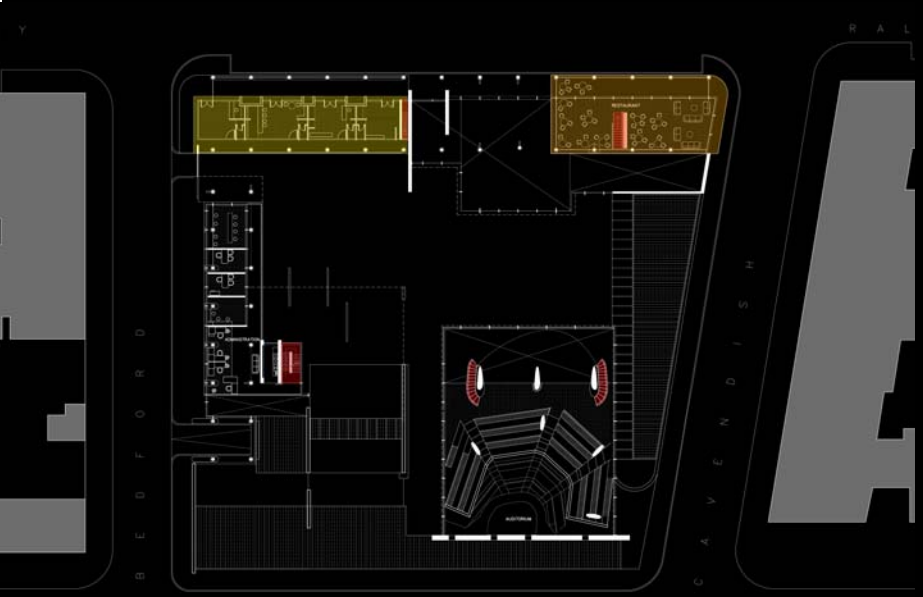
basement plan

scale 1:200





ground floor plan, *showing programme*



upper level plan, *showing programme and vertical circulation*

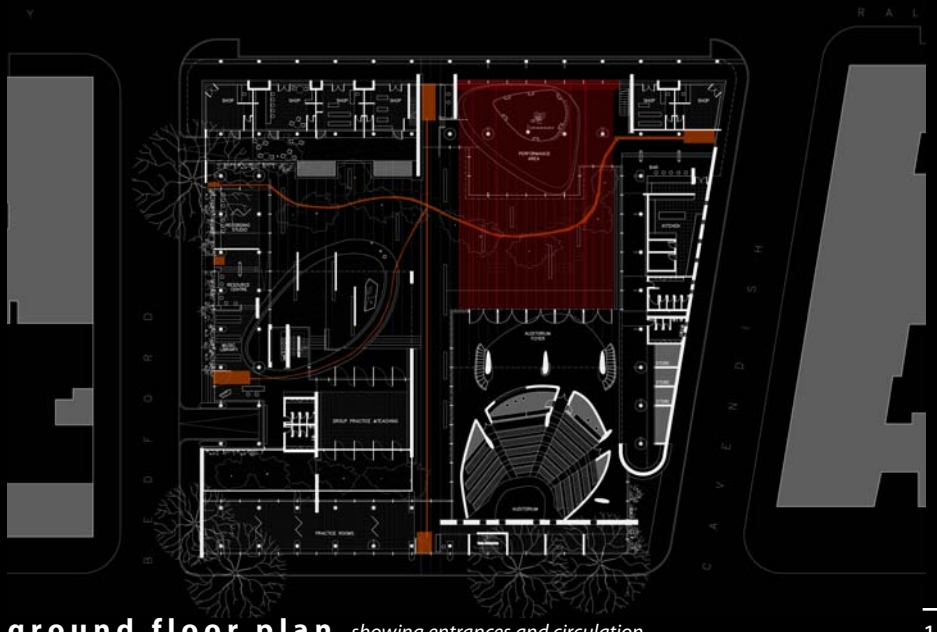
rentable component
shops and street trade

interactive public component
entrance foyer
library/research centre
performance space
cafe/club

teaching component
large & small teaching venues
recording studio
practice rooms

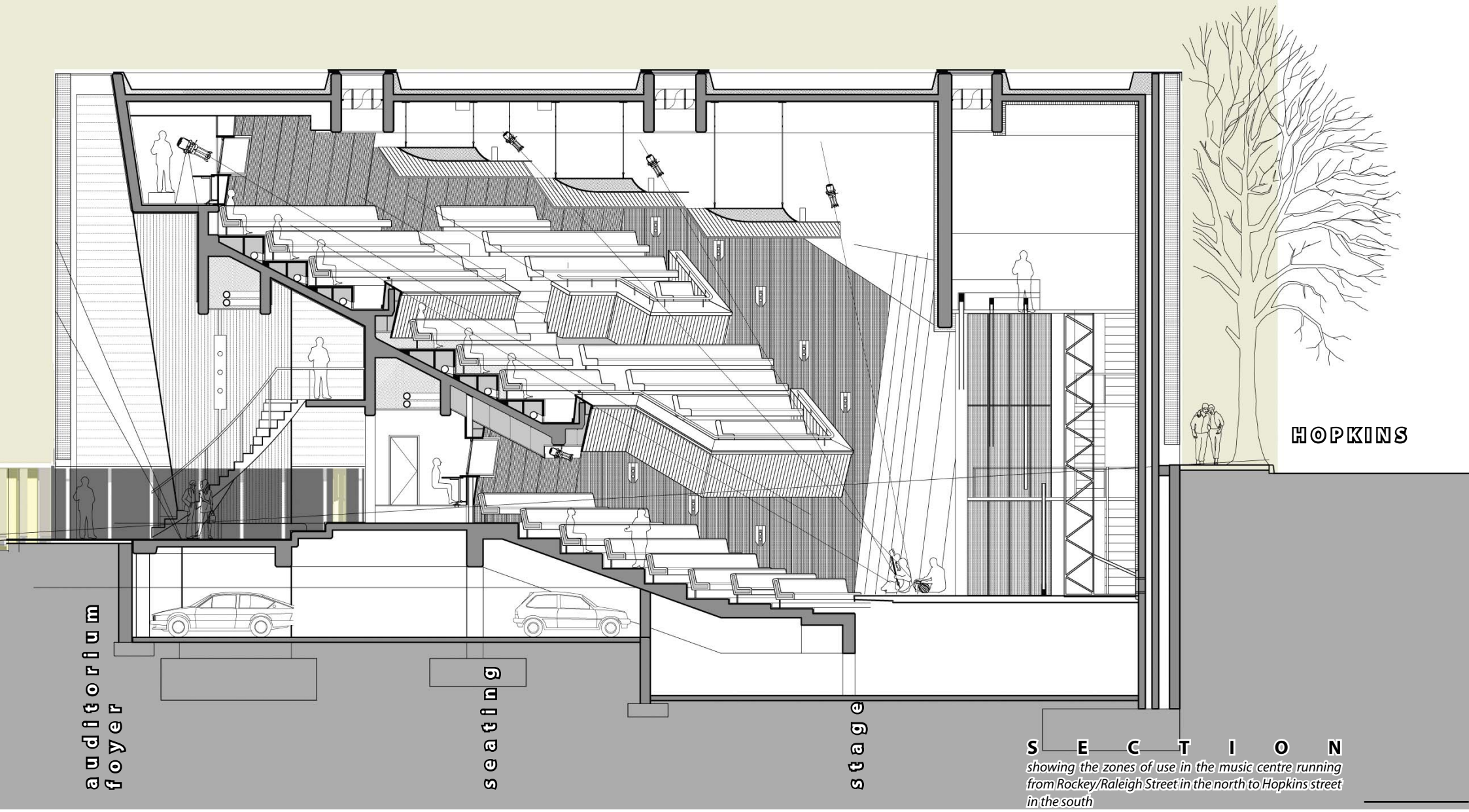


basement plan, *showing vertical circulation*



ground floor plan, *showing entrances and circulation*

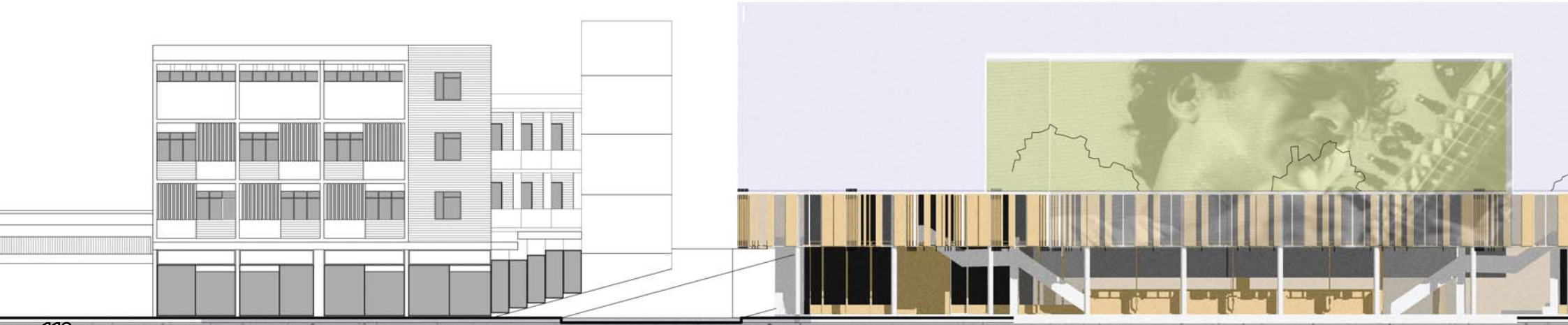
ROCKEY/RALEIGH
market
pavement
street
pavment
street performance
seating
courtyard



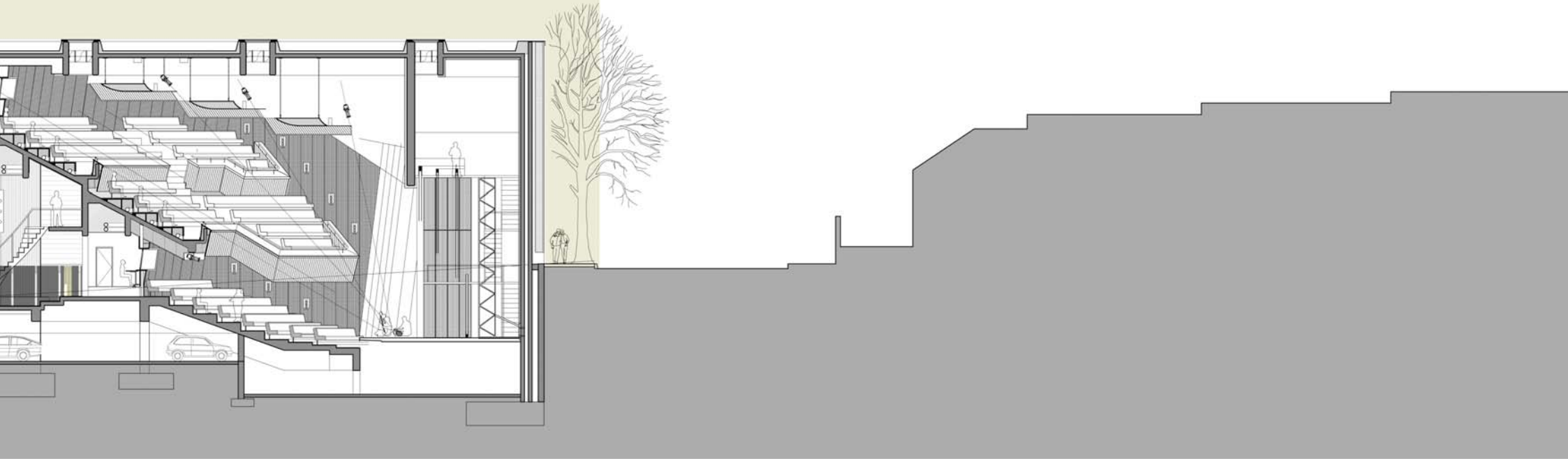
SECTION
showing the zones of use in the music centre running from Rockey/Raleigh Street in the north to Hopkins street in the south



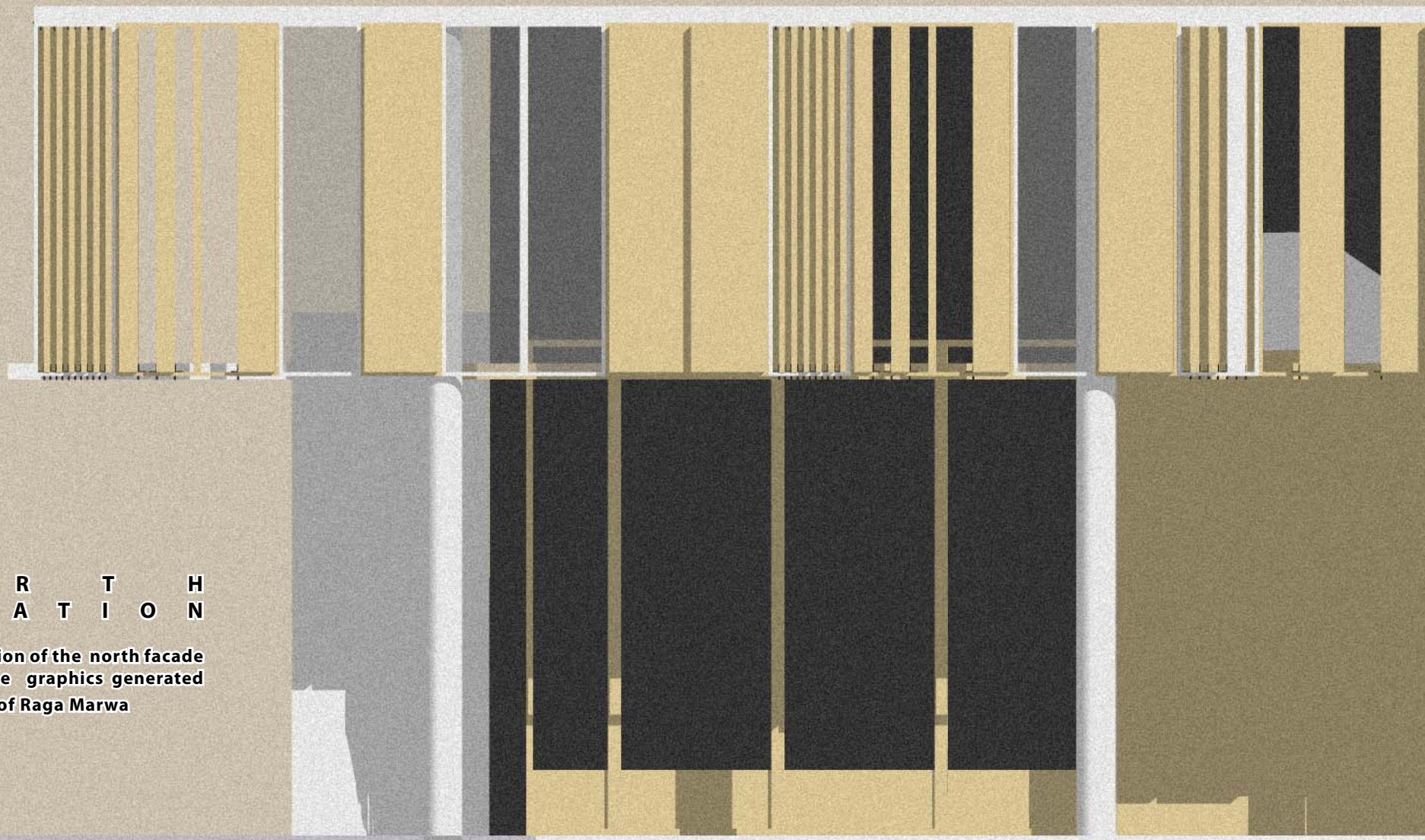
S E C T I O N



N O R T H
E L E V A T I O N

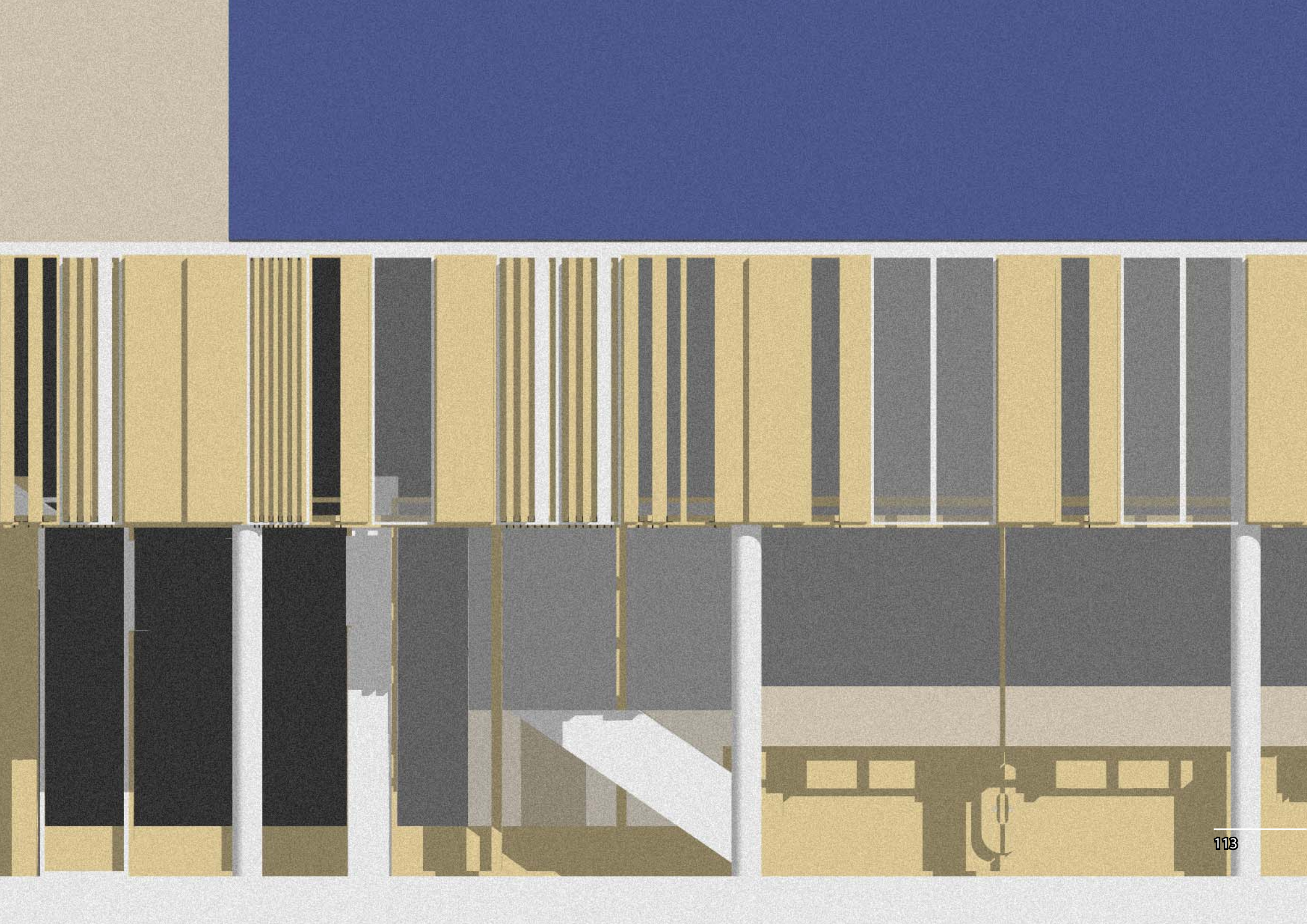


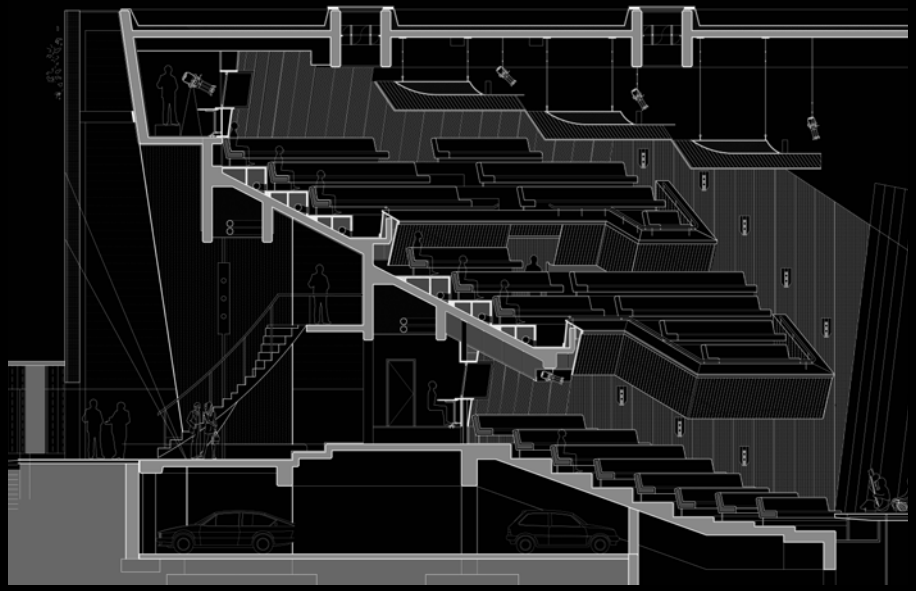


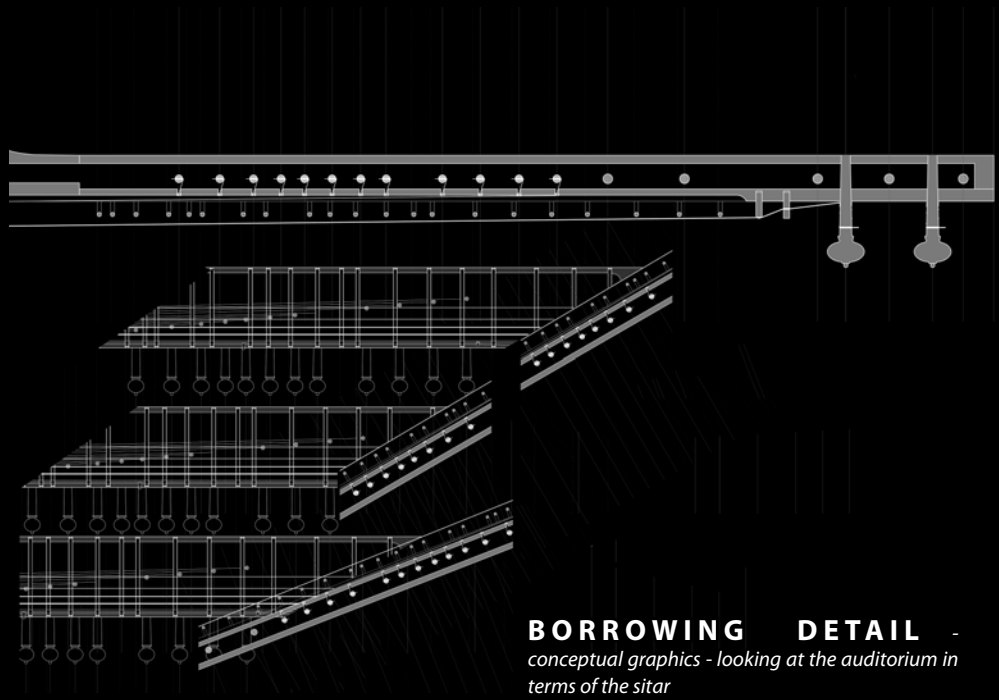


N O R T H
E L E V A T I O N

This detailed portion of the north facade is informed by the graphics generated from the analysis of Raga Marwa







BORROWING DETAIL -
conceptual graphics - looking at the auditorium in terms of the sitar

7. INSTRUMENT AS ARCHITECTURE/ ARCHITECTURE AS INSTRUMENT

Buildings provide spaces for living but are also de facto instruments, giving shape to the sound of the world. Music and architecture are related not only by metaphor, but also through concrete space. Every building I have admired is, in effect, a musical instrument whose performance gives space a quality that often seems to be transcendent and immaterial.

Daniel Libeskind (2002)

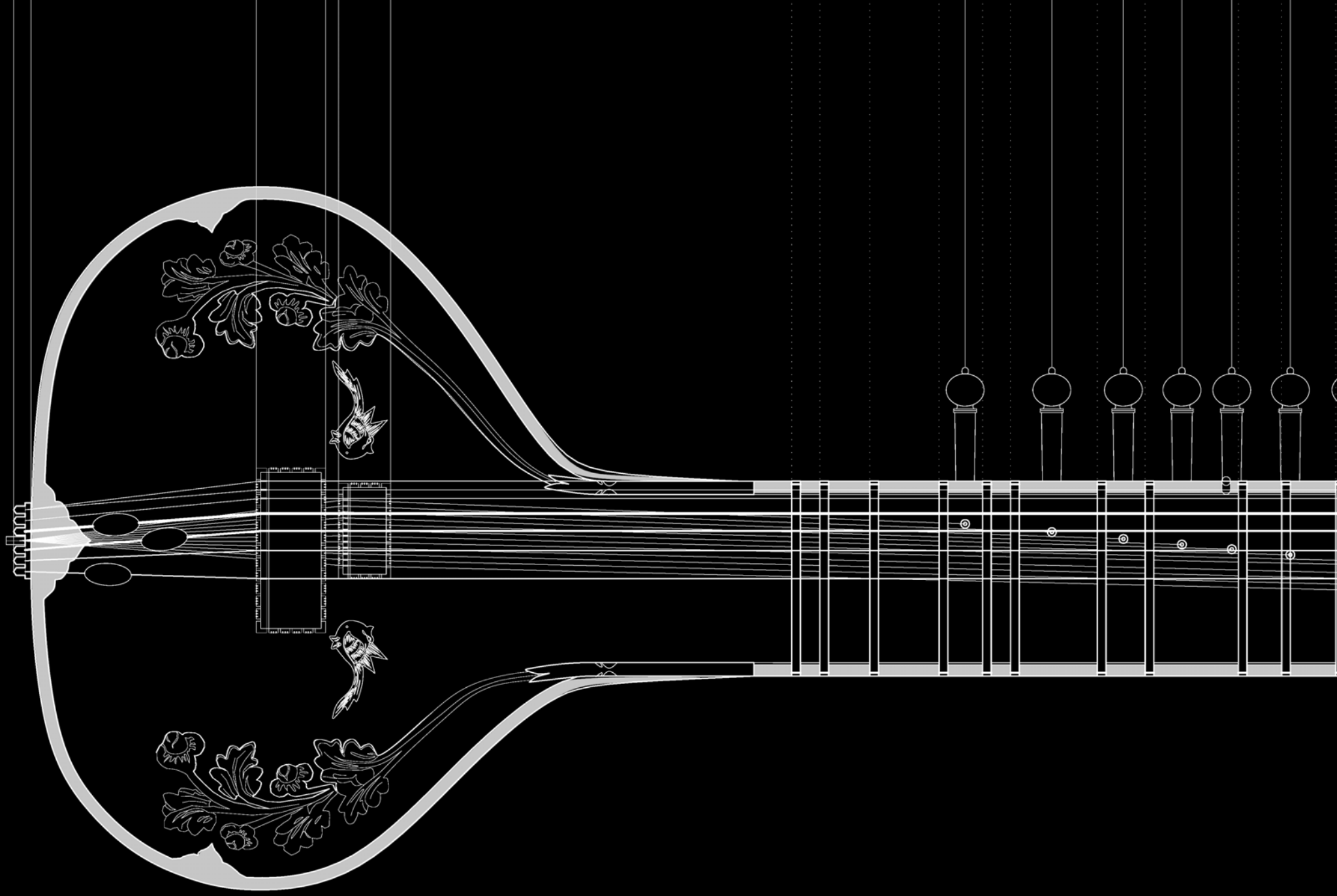
INTRODUCTION

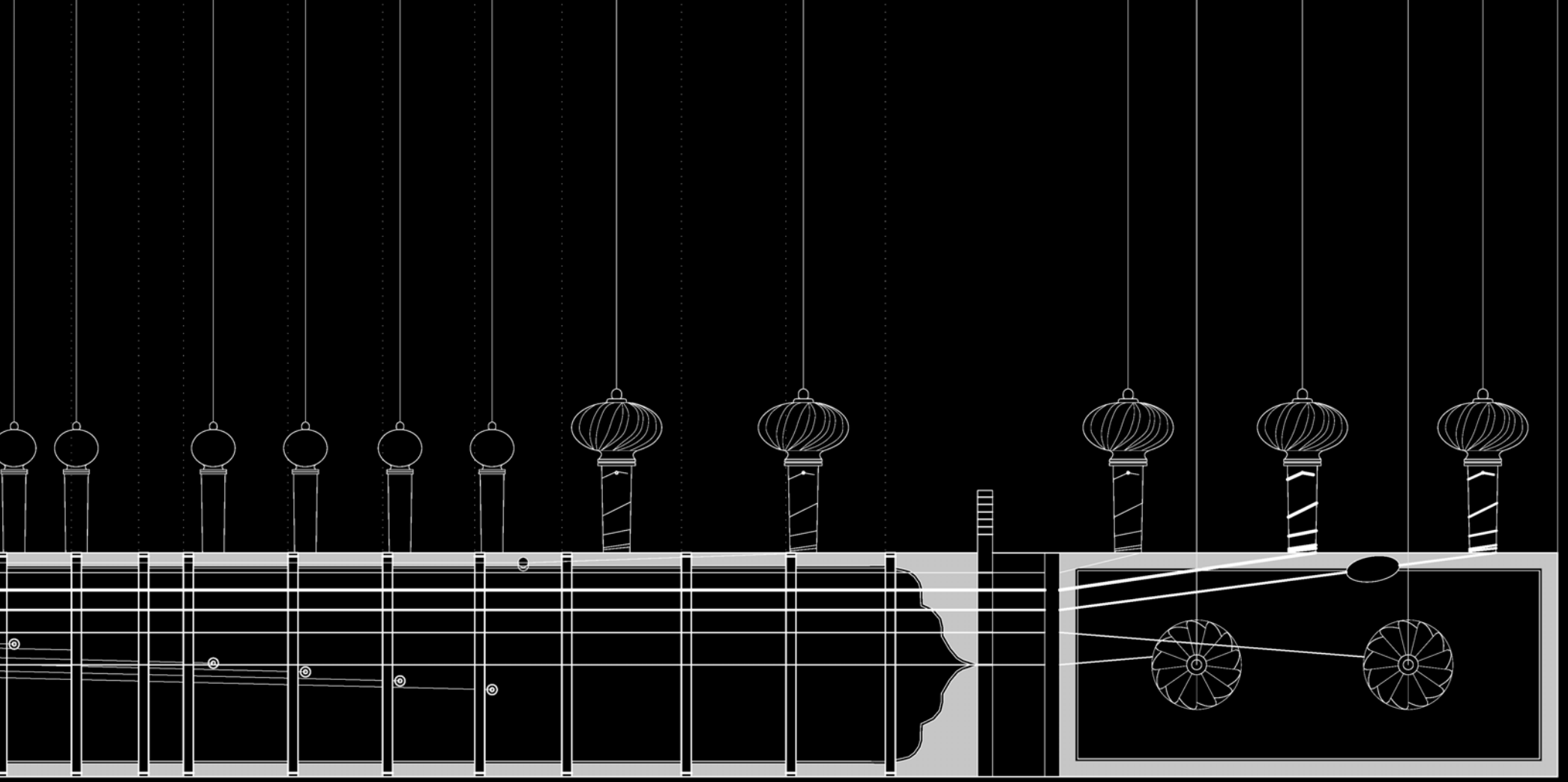
Where architecture and music have traditionally intersected has been on an abstract, theoretical basis. It has been a meeting place where similarities such as the compositional structure, aesthetics, acoustics etc., have been the common ground. There is a more obvious and tangible area of commonality between these two art forms; that is between the tectonics of building and musical instrument.

Here it is put forward for investigation, that it may be viable to derive certain ideas about architecture by studying a musical instrument. It is certainly not the intention to take an instrument and try and turn it into a building, but rather to derive ideas about forms and space; materials and finishes; structure and mechanics as a way of enriching architectural design and the thinking thereof. (Meuke & Zack 2007: 169-190 et. al.)

A musical instrument embodies specific characteristics about a musical culture or tradition; it is designed in such a way that it can produce in sound, the desired musical aesthetics and effects. Also, an instrument as a physical object represents specific ideas about aesthetics and craftsmanship which could be seen as a manifestation of musical concepts.

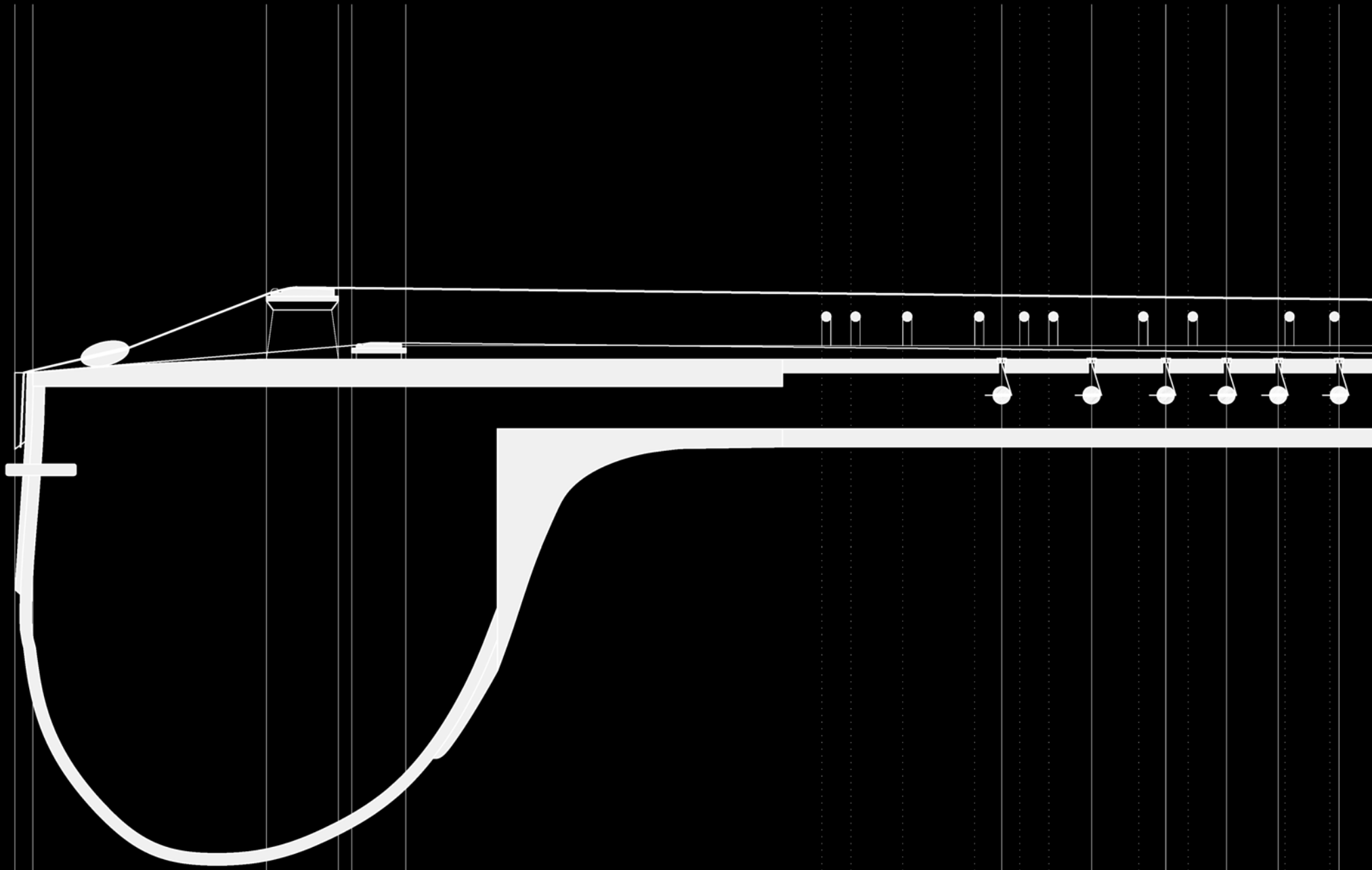
This chapter is made up of two parts. Part I examines the various aspects of the sitar (the most recognisable instrument of North India). Part II attempts to use the logic and ideas possessed within this instrument to inform the design of an auditorium for the performance of Indian classical music as one of the key elements of the Yeoville Music Centre.

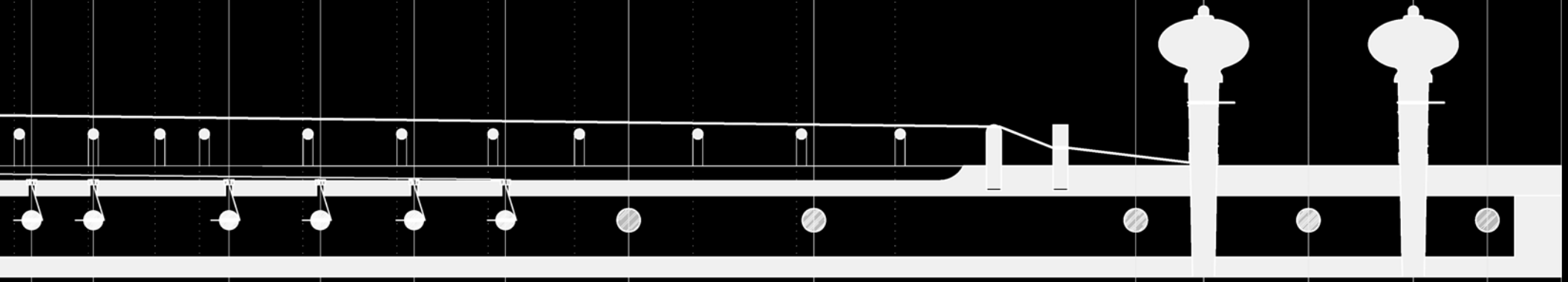




THE SITAR

Probably the most recognisable stringed zither of North India, the current version of which has been in existence for about 300 years.





THE SITAR

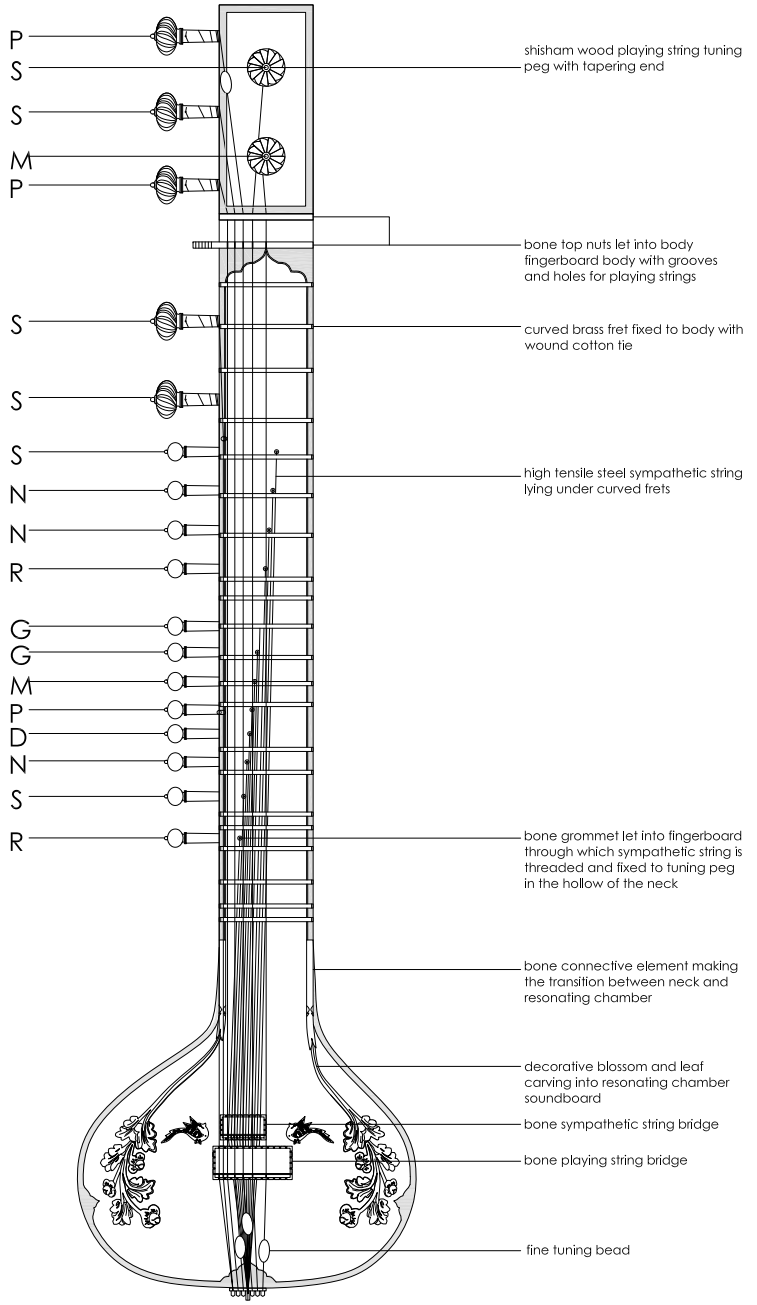
The section reveals the inner working of this instrument, most notably the sympathetic sting tuning pegs, hollow body and raised adjustable frets.

PART I: THE SITAR

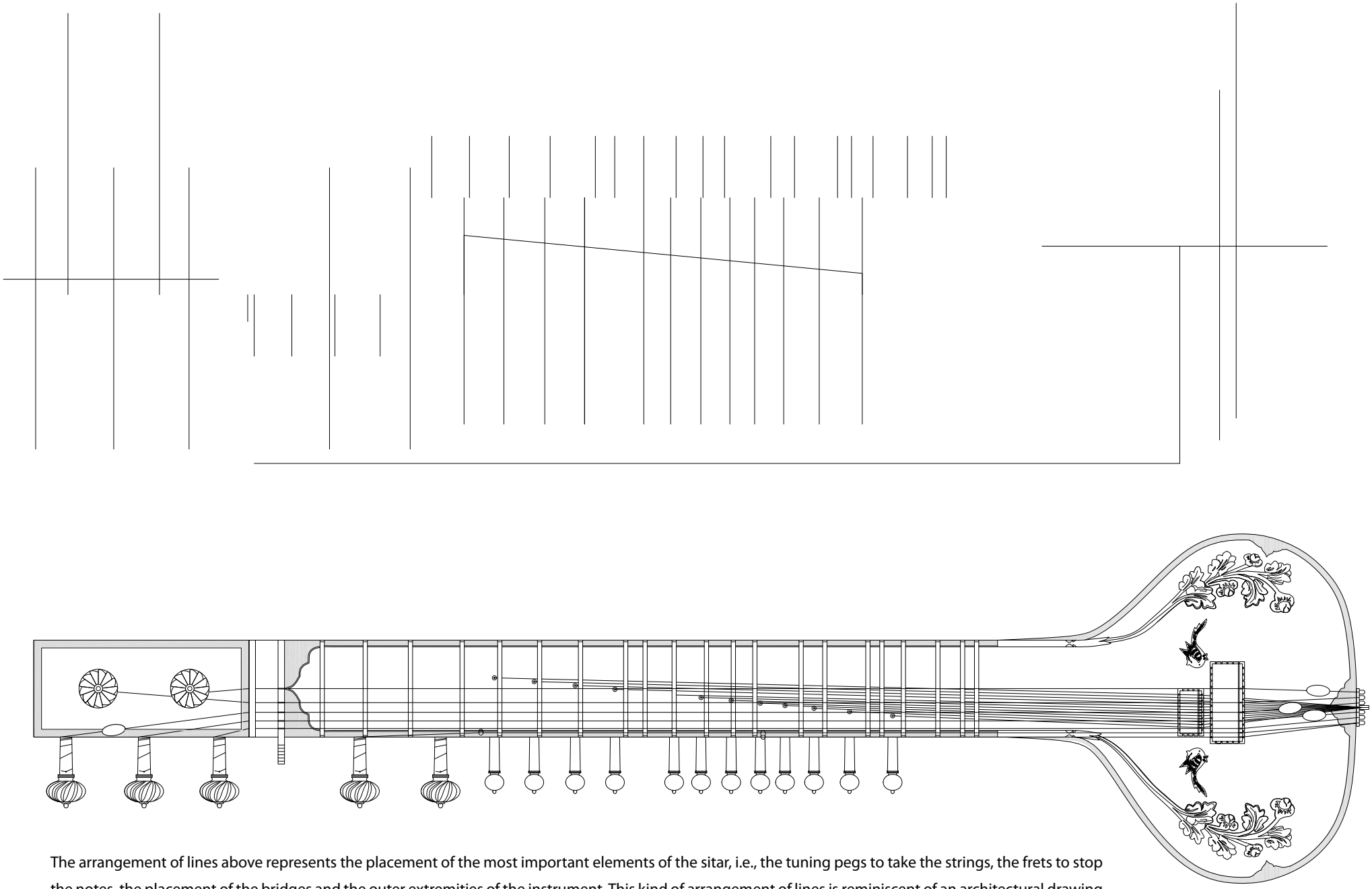
Here the sitār itself is the subject of study; the elements of the sitār, its construction and ornaments will be shown in detail through a number of careful drawings of the instrument. The sitār is then compared with a building; in this case it is the Barbican building, completed in 1931, which is situated on the corner of Rissik and President Street in the Johannesburg CBD. This could just as well have been any building other building; the aim here was to compare the sitar to a 'generic' building.

The sitar analysis takes its cue from a well known studio project that was assigned by John Hejduk in the architecture studios of Copper Union, New York in the 1970s and 1980s. Students were asked to choose a musical instrument and explore it through a series of full scale drawings. (Meuke & Zack 2007: 171)

The development of the sitār in the eighteenth century is largely attributed to Amir Khusru (of Persian origin), a scholar and court musician for Sultan Allauddin Khilji, a Pathan (ethnic Afghan) ruler of Delhi. (Shankar 2007: 53 et. al.) Amir Khusru is said to have combined elements of Persian and Indian instruments developing what we know today as the sitār, which has special characteristics particular to the production of the aesthetics of Indian classical music. (Ruckert 2004: 70-71)

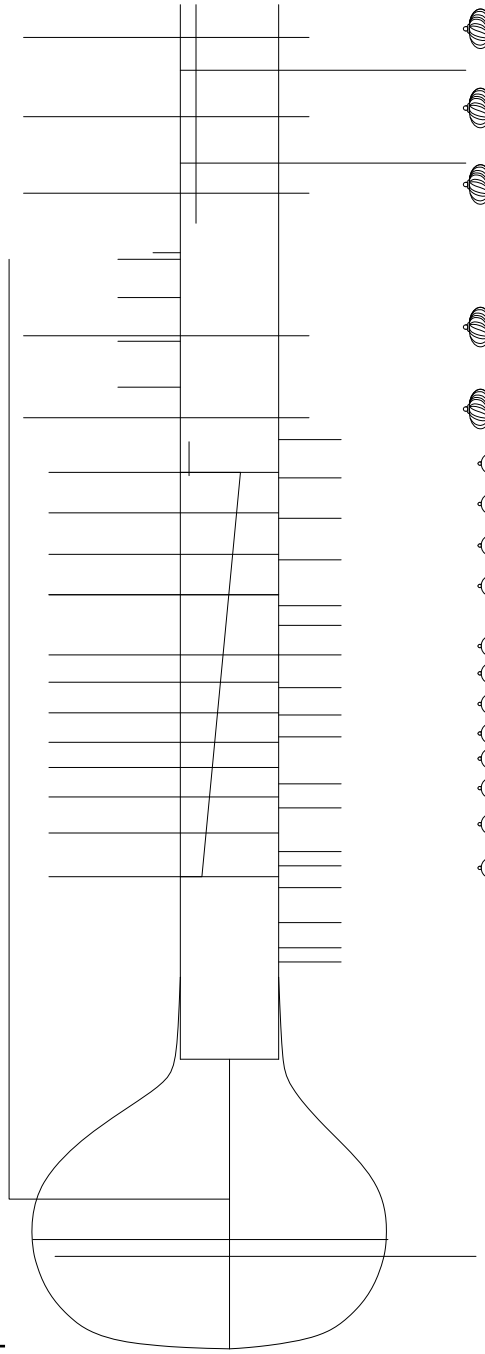


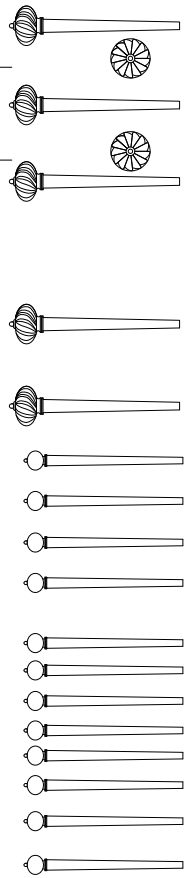
PARTS OF THE SITAR



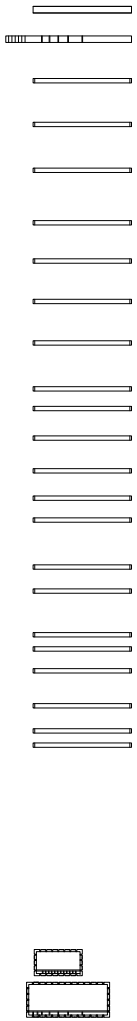
The arrangement of lines above represents the placement of the most important elements of the sitar, i.e., the tuning pegs to take the strings, the frets to stop the notes, the placement of the bridges and the outer extremities of the instrument. This kind of arrangement of lines is reminiscent of an architectural drawing where a series of intersecting construction lines usually form the proportional constrains in which a building is designed.

A B S T R A C T E D P R O P O R T I O N I N G I N T H E S I T A R





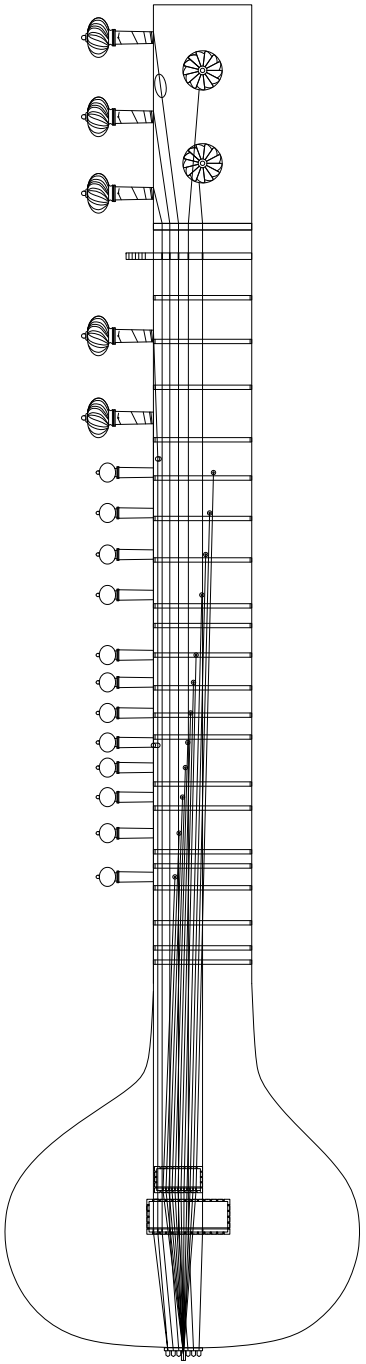
TUNING PEGS



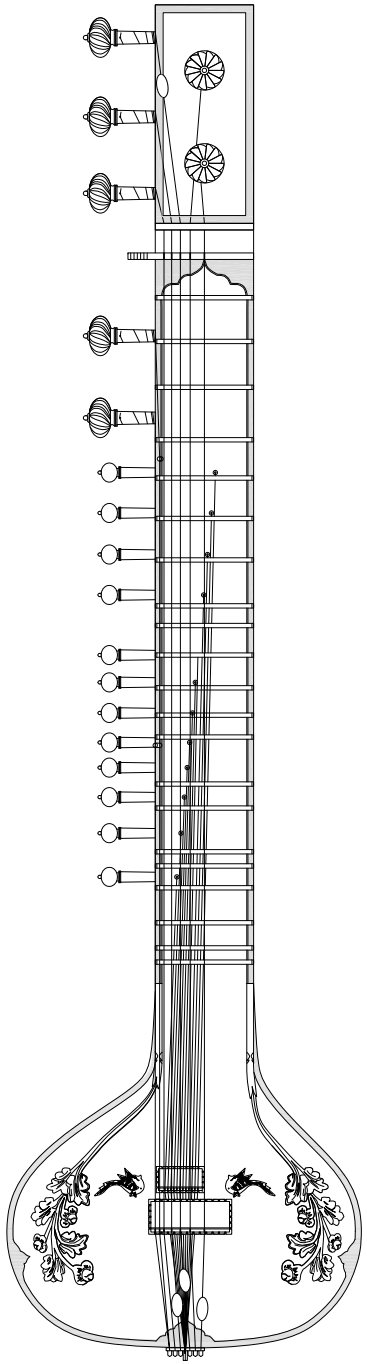
FRETS & BRIDGES



STRINGS

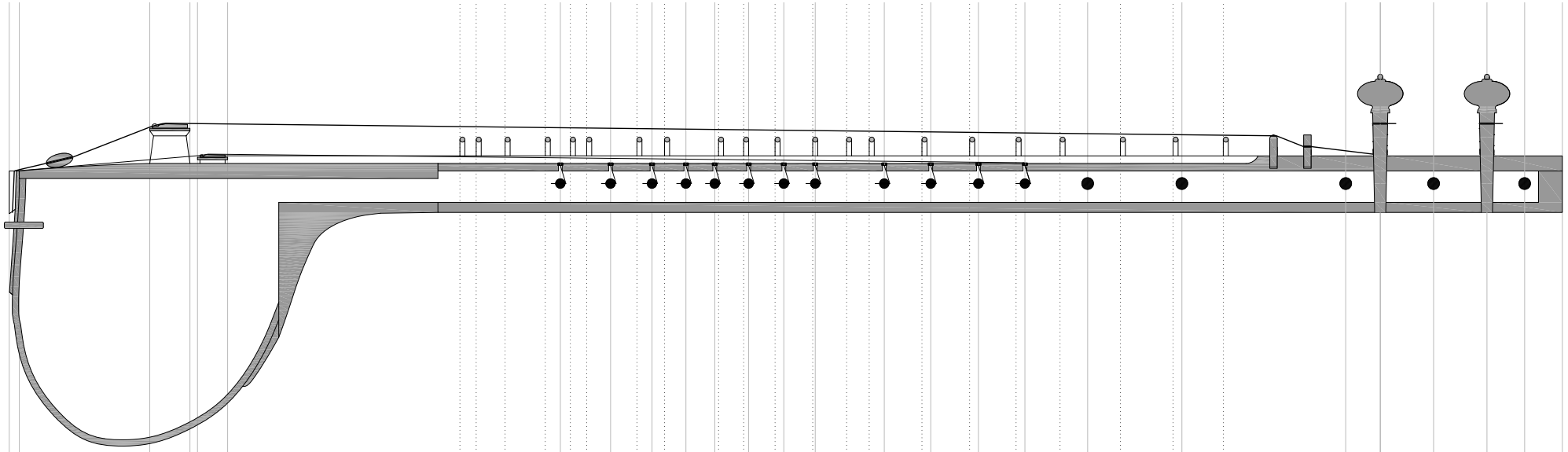


COMPOSITE

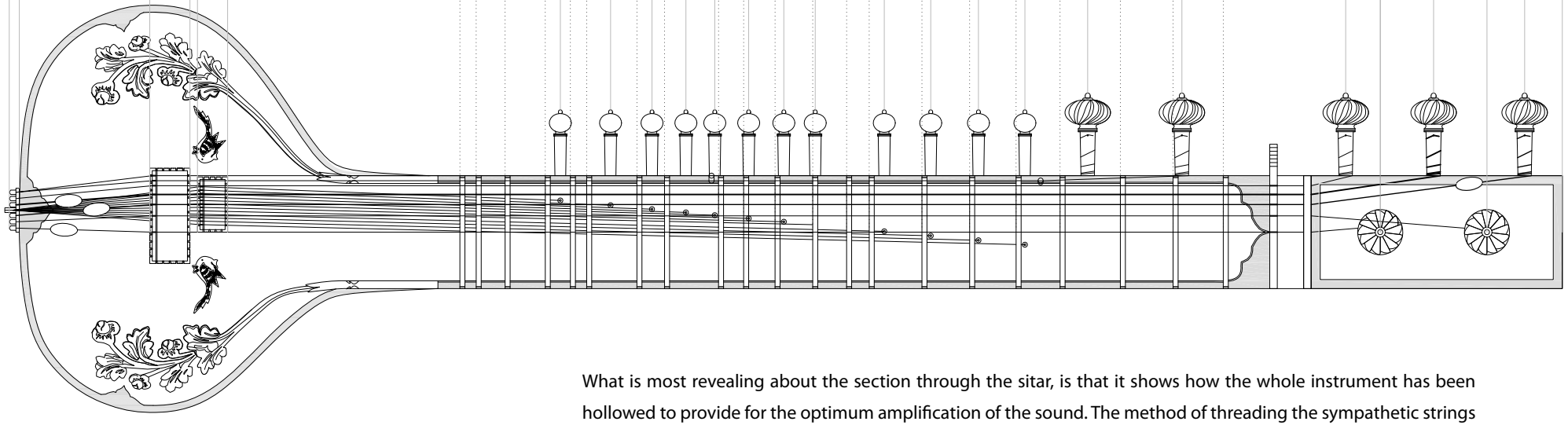


COMPLETE

ELEMENTS OF THE SITAR

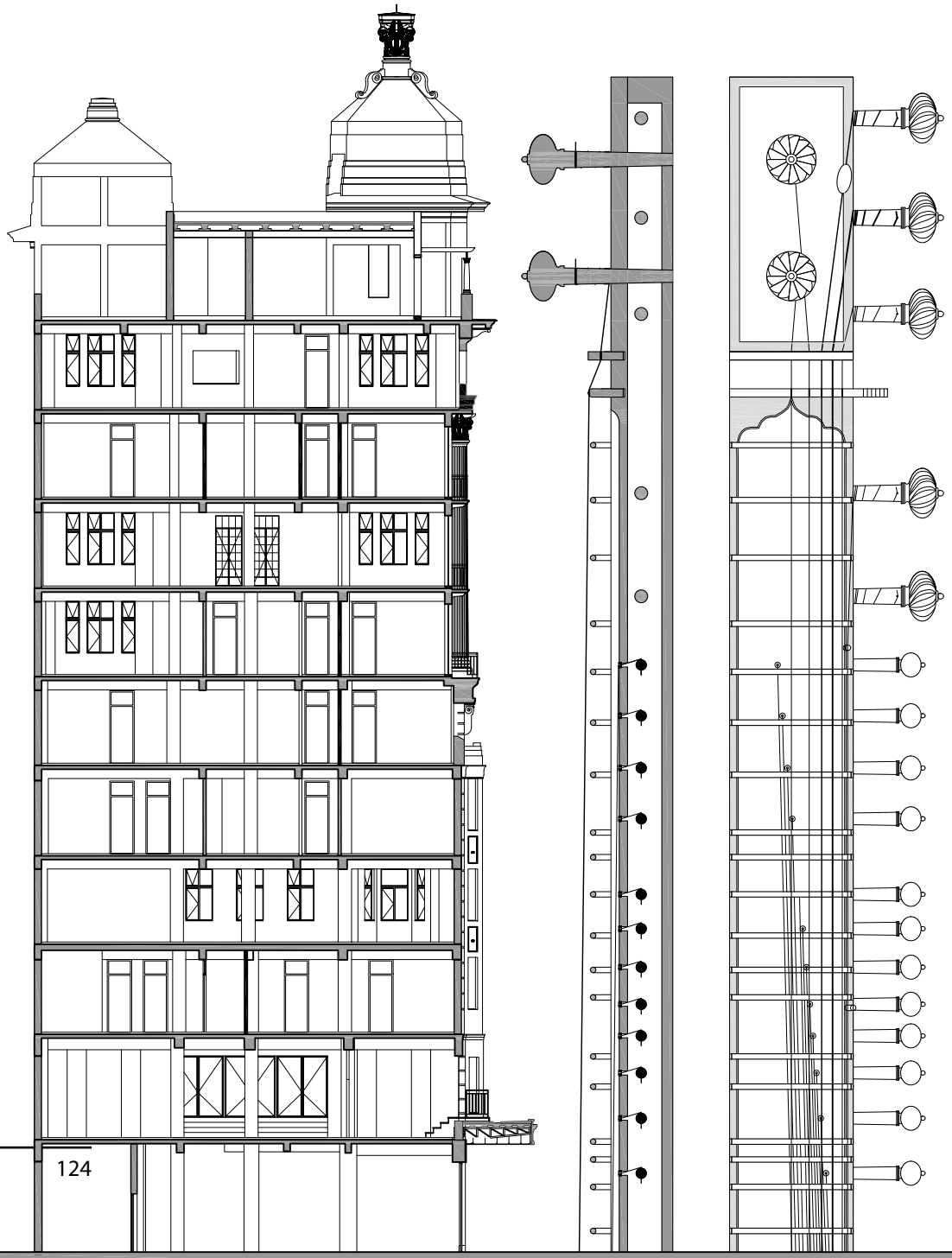


LONGITUDINAL SECTION



FRONT ELEVATION

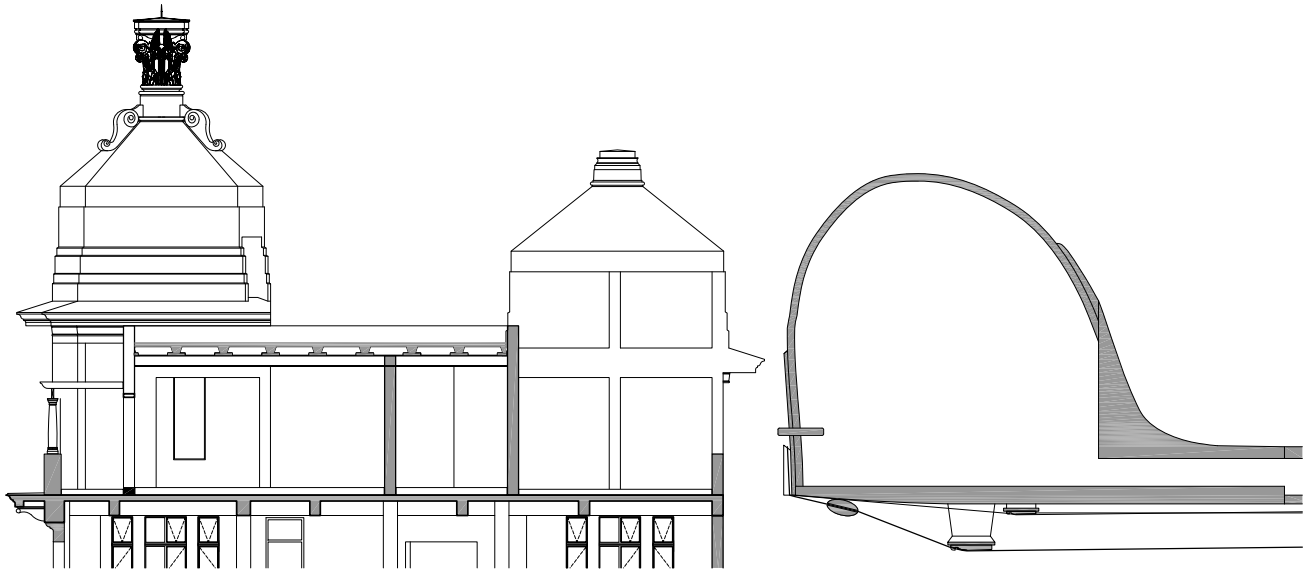
What is most revealing about the section through the sitar, is that it shows how the whole instrument has been hollowed to provide for the optimum amplification of the sound. The method of threading the sympathetic strings into the respective tuning pegs is something particular to the instruments of North India. The playing strings and sympathetic strings run parallel to each other and each have their own independent bridge.



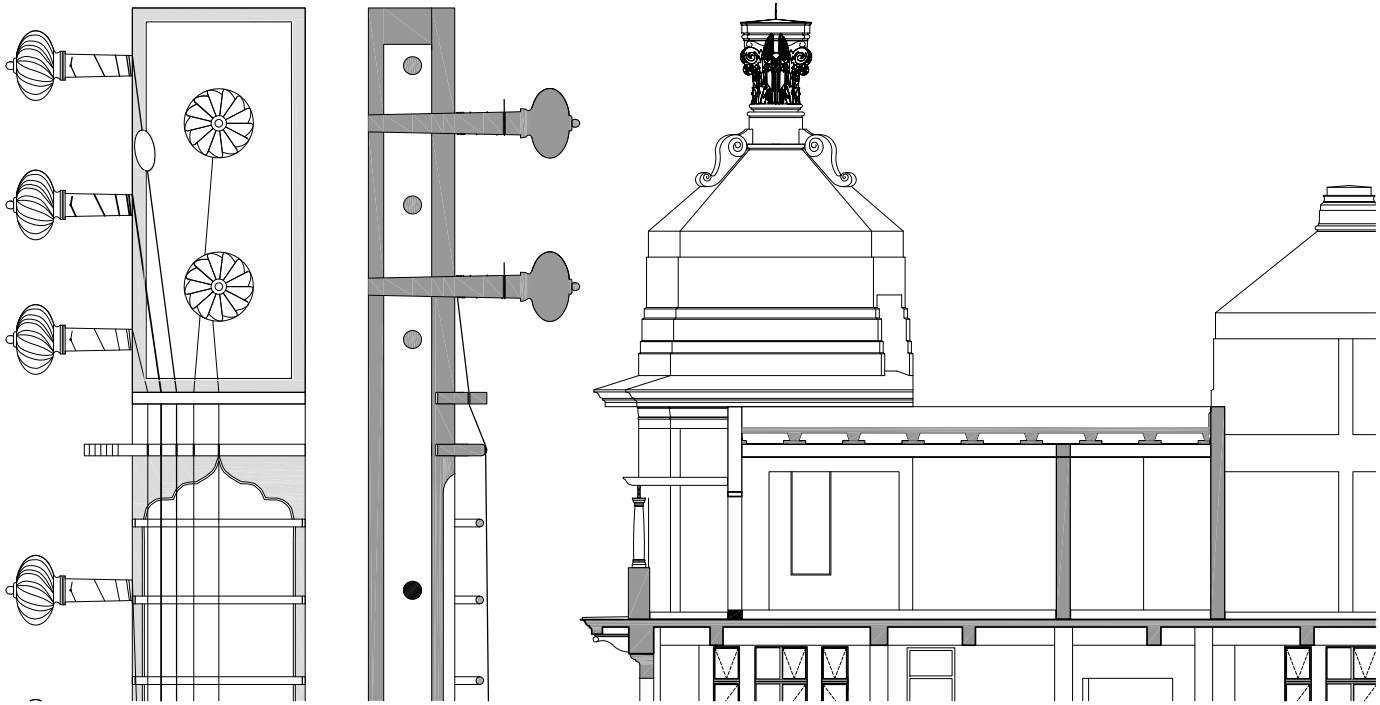
What does the instrument mean? – here it means string instrument, by the very virtue of its name, it suggests that it may mean guitar – which is not too far off, they do have similar elements: bulbous resonating chamber, a long neck with frets, tuning pegs, a number of strings attached, a bridge and top nut. Here there has been no intention to say or depict anything. On the face of it there is little interest here for aesthetics, since the process is outside purposive human action. The sitār may look like an Indian instrument, because of its decorative style, but who ever may see the sitār will gather its natural meaning with no difficulty. Here the meanings are overlaid, the natural meaning of string instrument and the iconography of Indian decoration.

Something similar could be said for the Barbican – this building means 'office block', although it has been overlaid with a mixture of classical styles

Here the implied space of the resonating chamber of the sitar shows a similarity to the lantern on the top of the Barbican. The timber either side of the hollow in the neck could be seen as floor slabs.



Here there way which the top end of the sitar and the Barbican have been treated in a similar way – both having a strong emphasis made about the top of the object.

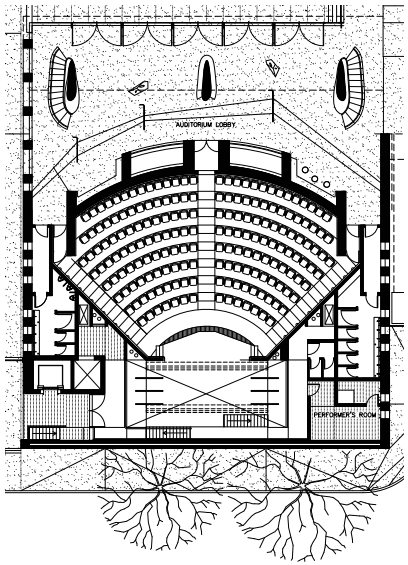


The programme for the Yeoville Music Centre requires that this auditorium is not used exclusively for performances of Indian classical music, although this would be its primary use. Certain considerations had to be made about what form this auditorium would take; how closely it would follow the tradition of performance and how the acoustic requirements are different from those of Western music. The aim of this chapter is not to do a study in acoustic engineering, but rather to use the tectonics of the sitar (and other instruments) and its craftsmanship, choice of materials and the meeting thereof to inform similar decisions in the case of an auditorium. Acoustic principals are used empirically in the general layout of the auditorium and the positioning of certain elements, for example, reflective and absorptive materials.

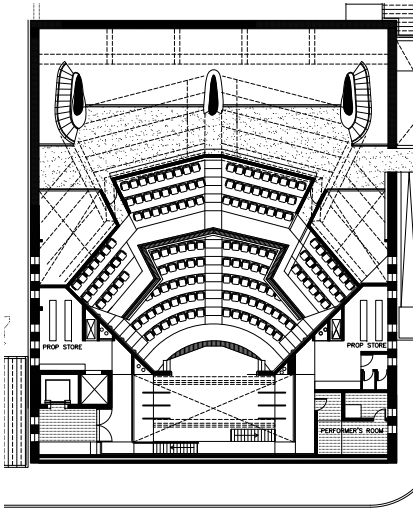
The primary concept in the design of the auditorium was to create a hard outer shell to protect the finely crafted interior space, in much the same way as an instrument would be protected in a hard case.

The auditorium is small by the standards of the concert hall and seats 500. The most important factor in the design of the auditorium was to have the seats as close to the stage as possible so that nuances of musical technique or facial expressions of the performer can be observed by the audience. Likewise, in a performance of Indian classical music, the musicians need to read the audience and adapt what they are playing accordingly.

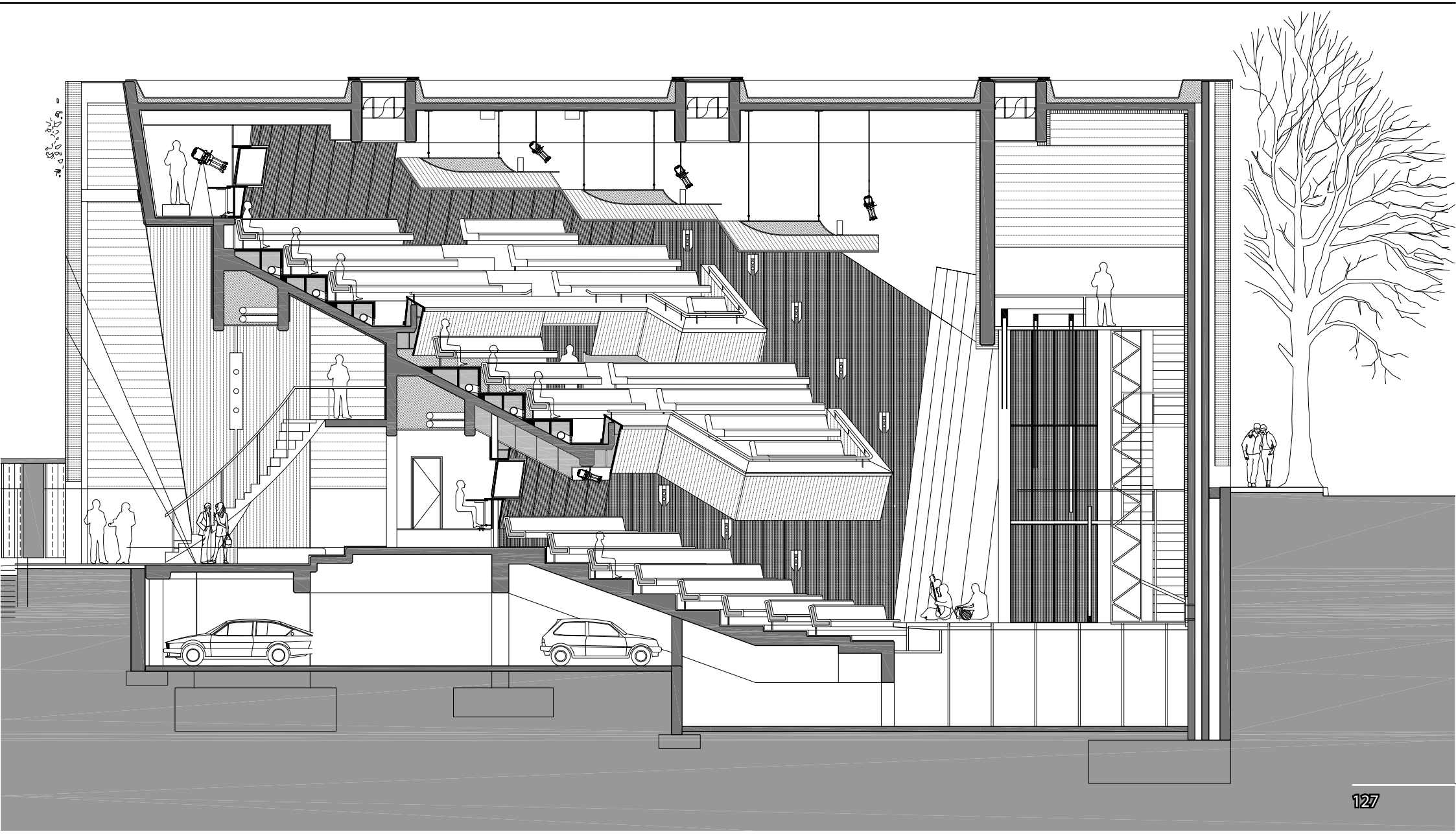
Traditionally, Indian classical music is performed to a small audience, in the range of 10-50 people. Within the last 60 years or so, with the increased audience for Indian classical music outside India, the type of performance venue has changed from an intimate setting to large concert halls or auditoria. The design of the auditorium for the Yeoville music centre draws a medium between large audience and the intimacy required to properly appreciate this music form.



AUDITORIUM PLAN, *groud floor showing support structure and raked seating contained within the outer rectilinear structure*



AUDITORIUM PLAN, *balcony level, covering half of the seating area below*





main playing strings, *brass, copper and steel respectively,*

adjustable fret, *brass, allows note to be bent up to three whole tones*

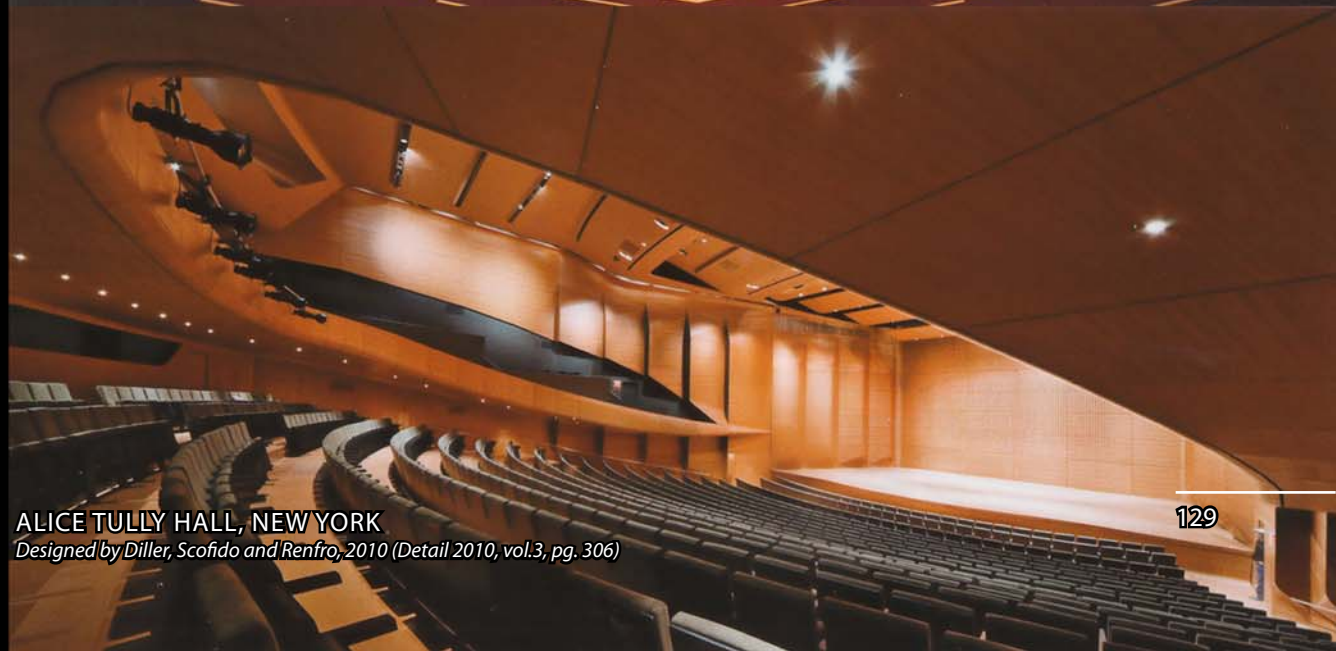
neck, *tun (a close realtive of teak)*

sympathetic stings, *steel, the 13 strings are tuned to the notes that are used in the Raga*

gut fixing, *ties brass fret to neck allowing it to be moved up and down the neck*



BERLIN PHILHARMONIC CONCERT HALL
Designed by Hans Scharoun, 1956, 1960-63 (Sasaki 1973: 31)



ALICE TULLY HALL, NEW YORK
Designed by Diller, Scofido and Renfro, 2010 (Detail 2010, vol.3, pg. 306)

AUDITORIUM INTERIOR

reflective ceiling, *timber laminate, hung from concrete roof structure and angled to give useful early reflections, thus 'carrying' sound to the upper rear seats. This ceiling also acts housing for lighting and services as required.*

balcony front, *Cape Beech with absorptive acoustic underlay, the timber cladding to the balcony fronts are affixed as gapped slats, which avoids distracting back-reflection effects for performers on stage*

support column, *concrete, these large support columns between banks of seating allow for large spans and clear lines of sight. Columns are left un-adorned and provide housing for speakers and services*

reflective wall, *concrete, provides necessary acoustic reflection for performers*

raised timber stage, *plywood, acts as a resonating chamber , or extention of the instument when it is in direct contact. Stage also provides housing for electroacoustic equipment required to enhance subtleties during the live performance*

padded seats, *in a compact seating arrangement which ensures that perfoance-goers are at most 20 metres from the stage so that nuances of expression and techique can be follwed.*





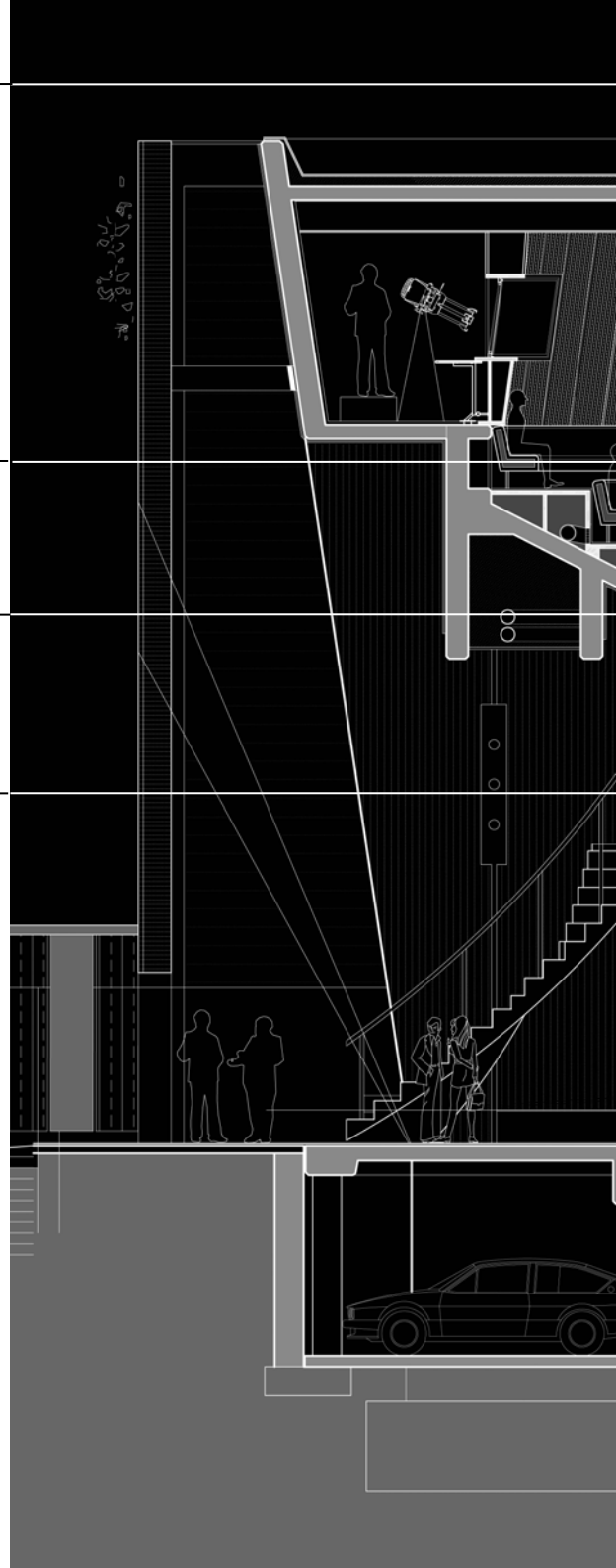
AUDITORIUM SECTION

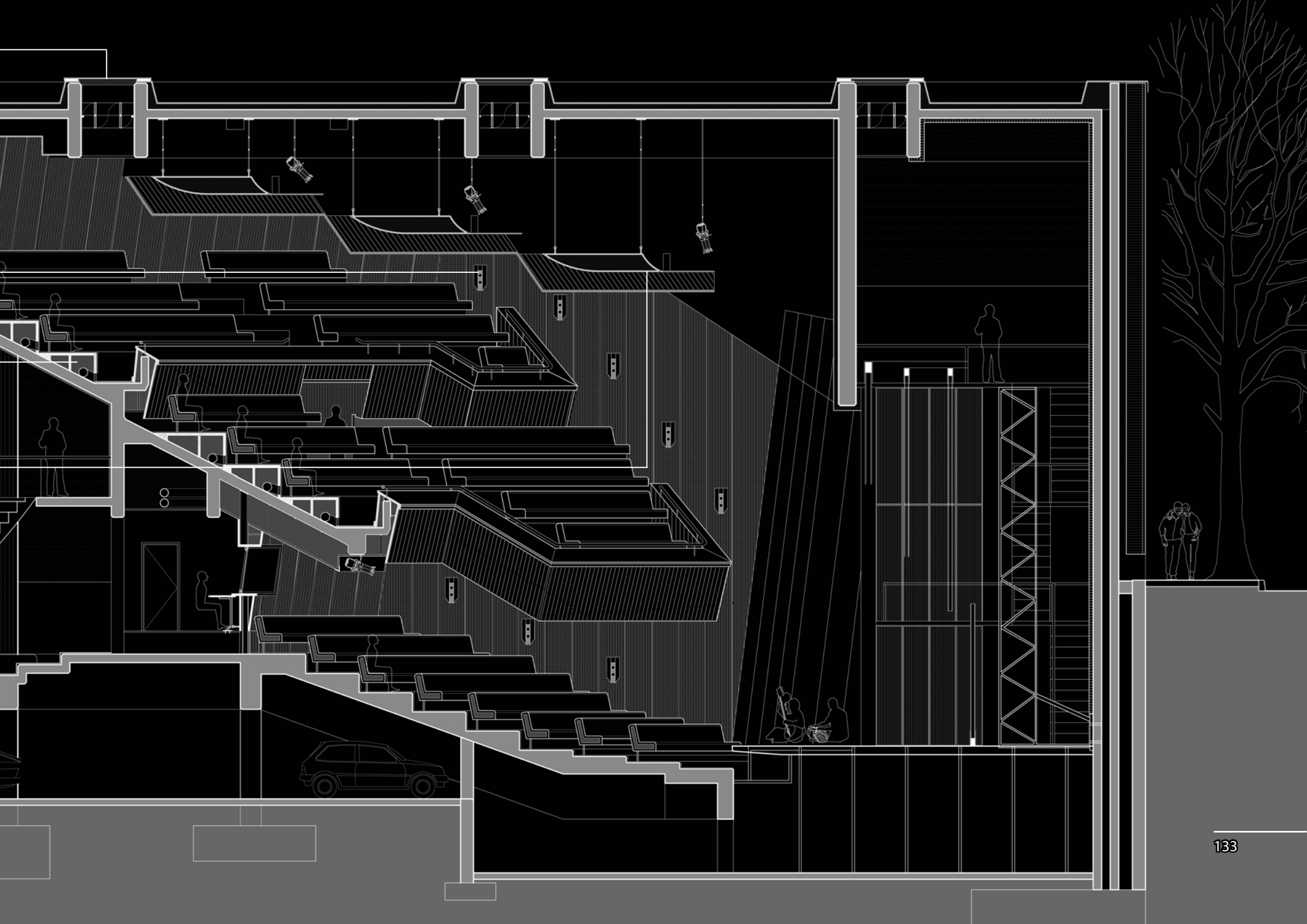
skylight, *with adjustable louvres, allows in natural light, a very important feature for Indian classical music performances, as Ragas are associated with a particular time of day. Louvres allow natural light to be controlled if need be.*

integrated electro acoustic system, *services within hollow support columns, provides amplification support required to enhance subtleties during the live performance*

air filtration, *concealed within composite balcony structure and reticulated from within main support columns*

adjustable acoustic reflectors, *timber laminate, angled for early reflections to the upper rear seats. Panels are adjustable to provide the desired dynamics in the auditorium for different performances*





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