

**INDIAN CLASSICAL MUSIC INSTITUTE,
BANUR, NEW CHANDIGARH (PUNJAB)
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1.ABSTRACT:

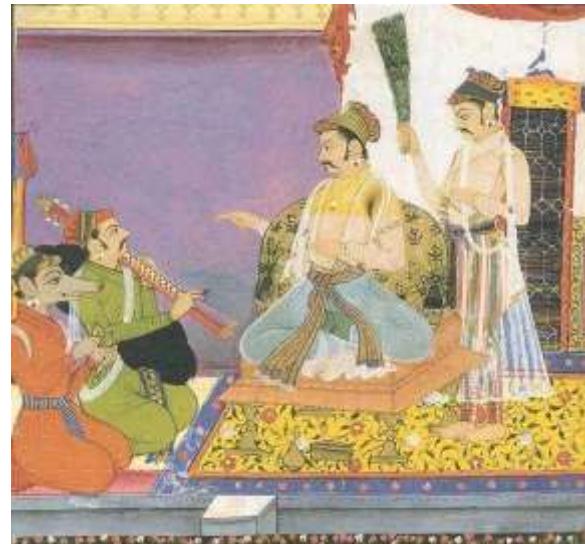
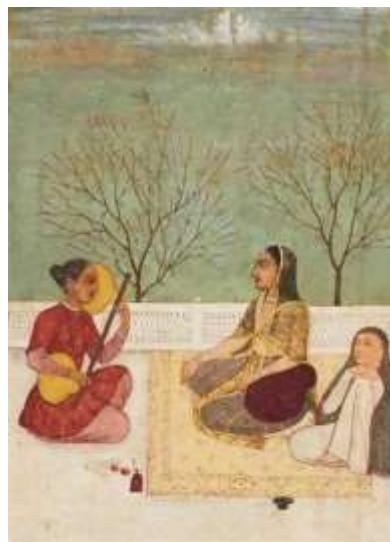
Music is the most powerful form of communication; music naturally triggers internal emotions that each individual has. Music is a saving grace that keeps someone sane through an intense workout, while for others it's simply an enjoyable experience. In a recent study, it was shown that music can do much more than lift our moods, however when listening to music our heartbeat syncs with the tempo of the tune. This can trigger physiological changes in the body that control breathing and blood pressure. Music has this quality to free one's self from anxieties created in this modern epoch. If we can understand the way music as cognition triggers our sensations to reach an emotional response, then we can apply such knowledge in architecture using rudiments of music to trigger the same emotions.

2.BACKGROUND:

What is Indian classical music?

Indian classical music is a rich tradition that originated in South Asia and can now be found in all corners of the world. Its origins date back to sacred Vedic scriptures over 6,000 years ago where chants developed a system of musical notes and rhythmic cycles.

In this way, Indian classical music is very closely connected to nature, taking inspiration from natural phenomena including the seasons and times of the day to create ragas or musical moods and many time cycles or 'taals' that have been further codified.



ORIGIN AND HISTORY OF INDIAN CLASSICAL MUSIC:

History of Indian music can be broadly divided into three periods: Ancient, Medieval and Modern.

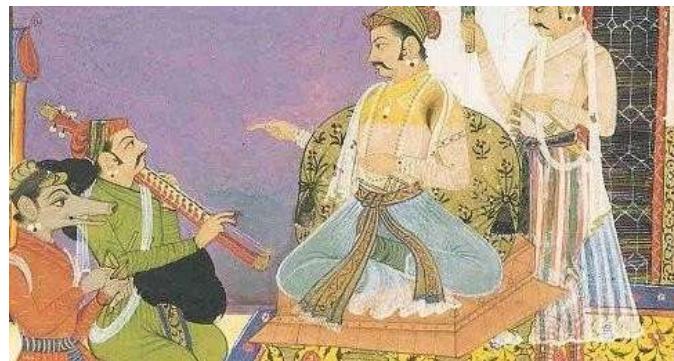
MUSIC IN ANCIENT INDIA:

The history of music in India can be traced back to the Vedic times. The concept of Naadbrahma was prevalent in the Vedic ages. All organised music traces its origins back to the Sam Veda which contains the earliest known form of organised music.



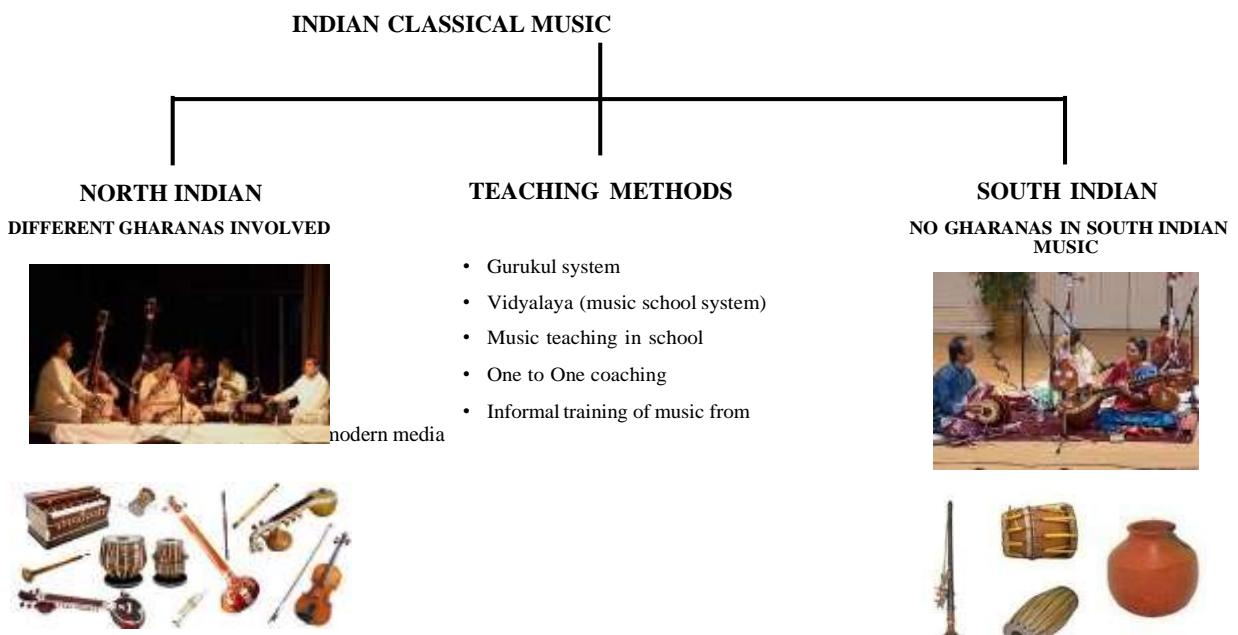
MUSIC IN MEDIEVAL INDIA:

In the medieval period, the nature of Indian music underwent a change due to the impact of the Muslim influence. At this time, Indian music slowly started branching off into the two distinct forms of Hindustani and Carnatic music.



MUSIC IN MODERN INDIA:

With the advent of the British in India, the court arts underwent a decline. Since most of the nawabs and noblemen lost their wealth and did not have the rewards to lavish on performers, most of the musicians had to move over to other occupations.



INTERRELATIONSHIP BETWEEN MUSIC AND ARCHITECTURE:

Literature established that the two subjects music and architecture had an complementary association in the built form, spatial organization and detailing. It is evident that the great masters of architecture continue to make use of musical concepts in their architectural compositions. In the



Western context Villa Savoye designed by Le Corbusier resembles guitar a musical instrument. The proportions of curved walls and parallel lines match with the instrument. There is application of abstract music as a symbol for concrete architecture in Le Corbusier's lyrical villa Savoye, built in 1929, at Poissy near Paris, which conveys the idea of music.

REFERENCES OF PERFORMANCE SPACES IN LITERATURE:

Music in the Ancient Civilization's –

Music has been a part of rituals and everyday life since time immemorial. It formed a part of the life and society of several ancient civilizations. Music was a part of rituals as well as a mode of entertainment in the ancient Egyptian society.

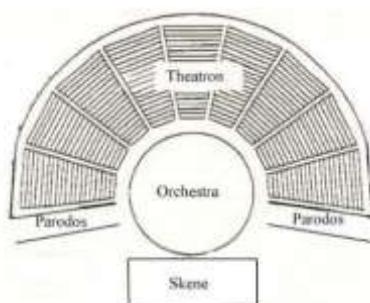


THE GREEK AMPHITEATRE:



STRUCTURE:

The Greek amphitheaters were huge open-air theatres built into concave mountain sides. The slope of the mountain served as a natural seating arrangement for the large number of spectators that the

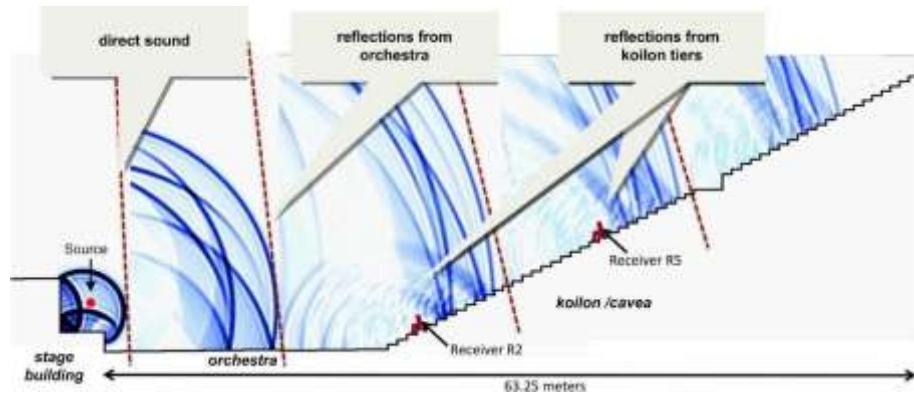


Greek drama attracted. While the earliest amphitheaters were made of wood, the later ones were made from stone.

ACOUSTICS OF THE GREEK AMPHITHEATRE:

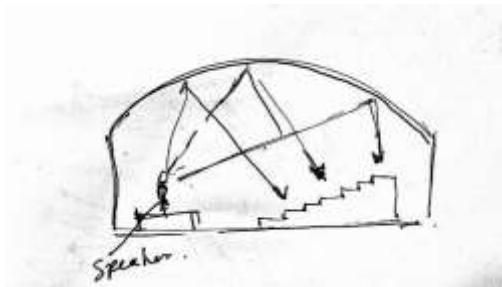
The Greek Amphitheatre is known to have had very good acoustical properties. This can be inferred from the fact that most of the amphitheatres had the capacity to seat tens of thousands of spectators, approximately 5000 to 24000 (Ephesus, 3rd century B.C.)¹⁶. There was no electronic amplification available and they had to use the available means to ensure that the sound from the stage and the orchestra reached the top seats in the theatron. Achieving this is truly a marvel and has elicited considerable scrutiny from researchers of various related domains. Some of the contributing factors to the acoustics are explored here.

- Stone is a good reflector of sound. The amphitheatre is made entirely of stone. This setting is instrumental in boosting the loudness of sound.
- The floor of the stage and orchestra were flat, hard surfaces. They also reflected and helped in boosting the sound.
- Most of the amphitheatres were set in scenic spots with lot of greenery around. Plants are good absorbers of noise. They helped filter out the noise from outside, and also kept the unwanted noise in the vicinity of the amphitheatre from becoming too loud and disturbing.
- The mountain slopes selected for the amphitheatres were concave in nature. This supported the fan-like structure of the theatron. A fan-like structure is well suited for performances without electronic amplification as all the sections of the theatron are at a uniform distance from the stage. This ensures equal distribution of sound in all directions. The concave shape of the theatron also ensured that most of the sound remained within the amphitheatre.



ANALYSIS OF ACOUSTICAL STRATEGIES USED IN GREEK AMPHITHEATRE:

Domes concentrate sound at their focal point. While using a single dome structure for concerts is not recommended, this feature can be explored for spaces which can accommodate very limited audience. In spaces used for conducting classes and workshops with a moderate number of

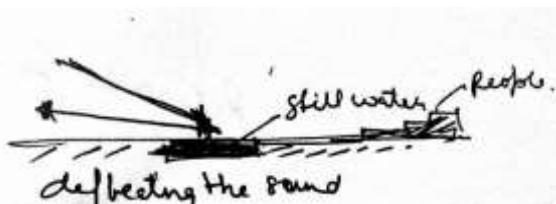


students, a multiple-dome structure can be used in such a way that sound is transported easily between the guru and shishyas.

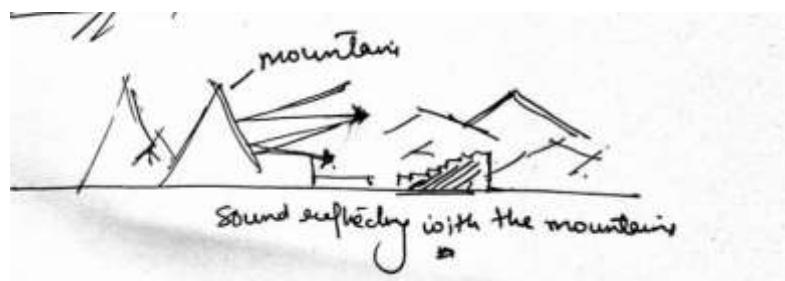
Excessive reflection from stone can be prevented by having sculptures and carvings which help in diffusing sound.



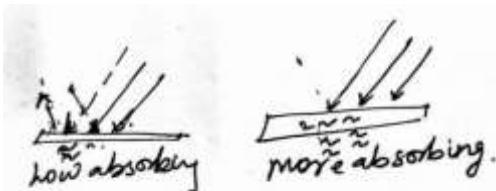
Still water in small quantities can be used to act as a mirror and deflect sound towards the audience. However, flowing water may not help in carrying sound.



Mountains and cliffs form great reflecting surfaces and help in the transmission of sound. Places surrounded by hills can be explored as performance spaces.



It is important to find a balance between reflection and absorption. Excessive reflection will distort sound, whereas excessive absorption can muffle sound. The right balance can make it audible and pleasant.

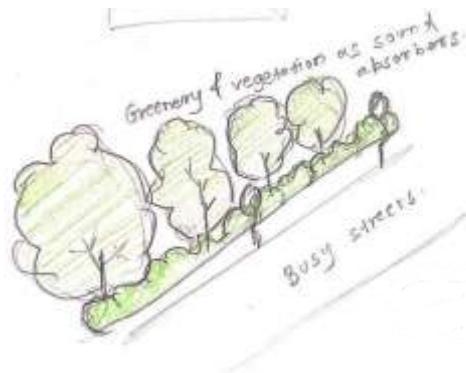


A sloping or stepped seating arrangement that rises upwards from near the stage is a very good way of ensuring that direct sound reaches every member of the audience. It is also a good way of ensuring visibility to every part of the audience.

Wood can be used to absorb sound. It can be used in innovative and artistic ways like carvings or paintings on wood and hung in suitable places.



Greenery and vegetation are very good absorbers of sound. This factor can be utilised in performance spaces that are close to busy streets or prone to high background noise. This is beneficial not only in controlling background noise, but for the environment too.



3. INTRODUCTION:

Indian classical music is the classical music of the Indian subcontinent, this includes India, Pakistan, Bangladesh, Sri Lanka and Nepal. It has two major traditions: the North Indian classical music tradition is called Hindustani, while the South Indian and Sri Lankan expression is called Carnatic.

These traditions were not distinct until about the 16th century. During the period of Mughal rule of the Indian subcontinent, the traditions separated and evolved into distinct forms.

Sitar, sarod, tabla and sarangi or dhrupad khayal, ghazal or raga, tala gharana these are known the world over today. They represent Hindustani Art Music in reality, a part of Indian Classical music. Indian music has developed through very complex interactions between different peoples of different races and cultures over several thousand years. In a musical tradition in which improvisation predominates, and written notation, when and, in skeletal, the music of past generations is irrevocably lost.

4.CASESTUDIES AND CONCLUSION:

GANGUBAI HANGAL GURUKUL, HUBLI:

LOCATION: HUBLI

AREA: 5 acres, BUA: 40,000 sq. ft

ARCHITECT: Third space architecture studio

This Gurukul is located in the picturesque Unakal village in Hubli. This school imparts education by means of a traditional method – ‘Guru – Shishya Parampara, this tradition, or parampara forms the very soul of the oral musical tradition in India, laying utmost importance on the learning and living relationship between the master and the pupil. The tradition calls for complete surrender – emotional, intellectual and spiritual – towards the Guru. The design is distinctive in its approach and aesthetics, while being contemporary and sensitive to the pristine setting it belongs to.



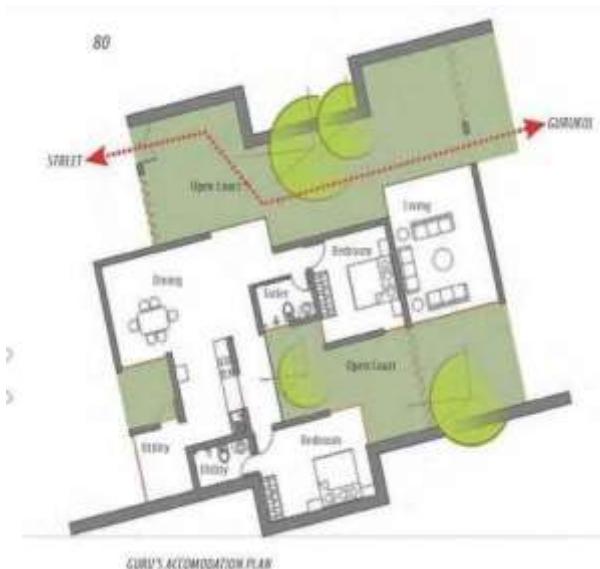
The design is anything but rigid, adjusting and adapting to how one intends to use it; the sloping roof becomes a raised riyaz garden, when required.

The more or less squarish site is roughly divided by a water channel, which the architects have used to their advantage; resourcefully locating the gurukul on one side and utility buildings on the other side.

This water channel has also been remodelled as a visually aesthetic water body, collecting rainwater and creating a pleasant micro-climate for the school.



The design of the Gurukul seems to draw inspiration from a mat, with strands of cloth interwoven with each other; the architect's engagement with linear designs. One can see the design interweaving communal spaces, student and teacher housing spaces as well as the riyaz areas; the school has six Gurukuls arranged north-south, with communal spaces and academic spaces in the east-west



- Guru – shishya parampara has been followed.
- The overall design shows rigidity.
- The contours/slopes have been used while designing which gives it a wave form to the overall design.
- The green sloping patches besides the house are meant for riyaz. It give the students the freedom to practice their music in an open environment.
- The gurus' house in located in the north whereas the students houses are in the southern area.
- There is a river passing through the site.
- Terracotta roofs are used. And overall pastel theme of color is used.
- The green spaces help in maintaining the micro climate.
- The design is inspired by the sitting mat. The student houses, roofs riyaz areas and guru house are interwoven with each other

KALA ACADEMY, GOA:

LOCATION: situated at Campal, Panaji along the banks of river Mandovi. Area has mixed land use with a military hospital across the road, a cricket ground and a park on either side.

ARCHITECT: Charles Correa

BUILDING TYPE: Institution

SITE AREA: 6.3 acres

SITE GRADIENT: Gentle slope



INTRODUCTION:

Venue of international film festival of India.

Estd. In 1969 – prime promotion of art and culture Goa.

Vibrant representation of the culture and art of the people of Goa this is expressed in the staggering amount and variety of cultural programmes held in its premises.

ACCESS:

Regular buses connecting Panaji and the academy are available.

Dabolim airport, 35km

Nearest railway station is Madgaon, 53km.

LAYOUT:

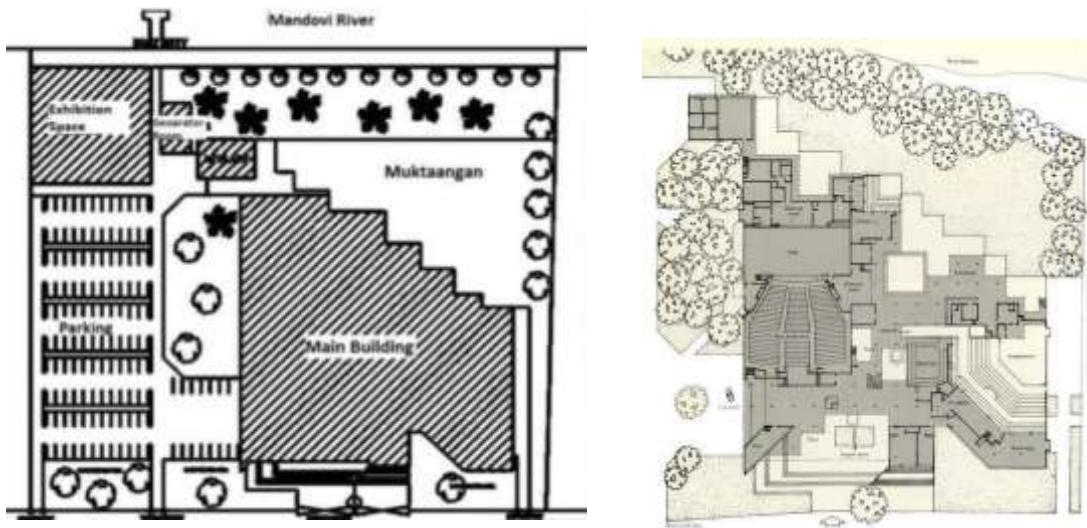
Four entries to the site.

Boat jetty provided on the river side.

Coverage is about 40%

Well defined pedestrian and vehicular systems

Includes the cafeteria into main building service building, muktangan, parking area, the exhibition space.



FACILITIES AT KALA MANDIR:

- D.M Kala Mandir
- Open Air theatre
- Mini OAT
- Black Box
- Art gallery
- Meeting room
- Guest room
- Preview theatre
- Cafeteria
- Library
- Teaching studio
- Green room
- Kitchen
- Administration
- Reception
- Lounge

ANALYSIS:

Plan is divided into different zones.

Open – built spaces

Designing of public spaces are taken into consideration

Separate service blocks are provided

Vehicular and pedestrian ways are properly defined.

Public spaces are too large.

It “dissolves the distinction of inside and outside, architecture and nature. The street is internalized by the building, which opens itself to the sky, vegetation and the river. The ritualistic pathway, the interplay of sight-line and screen, the open-to-sky spaces, the gradients linking various levels in a gentle terracing—all these classic features of Correa’s architecture are present. And let us not forget the laterite that forms its key medium—it articulates the flesh and blood of Goa’s architecture, it comes from the soil of Goa, from the soul of Goa.”

5. LITERATURE REVIEWS:

1. COMPARATIVE STUDY TEACHING METHODS:

(Comparative study of Ancient Gurukul System and The New trends of Guru – Shishya Parampara)

- By Sanyukta Kashalkar-karve (Junior Research Scholar)

The education given under ancient Gharana Parampara and today's Gharana Parampara is that there is no restriction as per Gharana is considered and thus independent styles are coming up and performers mostly see what audience want them to sing. Due to a devoted guru in ancient learning the process learning music would take time which in modern time of classical music is defined by institutes and universities. These helps in guiding the student in proper time period and shape him up as desired artist.

2. CAMPUS PLANNING:

- By Snehal Y. Damugade (Assistant Professor Department of Architecture , D.Y. Patil College engineering and Technology, Kolhapur)

While planning campus urban planning principles like as vista, sky line, view points, path, edges, and landmarks.Etc. Should be followed. So, with the help of these principles we can create aesthetically good looking, functional, economical and pleasant campus. Celebrate the distinctive elements of the campus environment with imaginative ideas, technologies, and processes. It also Assure the development of a comprehensive program and the integration of design aesthetics, functionality and flexibility, capital and life-cycle costs, and sustainability.

3. TEACHING STRATEGIES LEARNING THROUGH ART: MUSIC AND BASIC DESIGN EDUCATION

Assoc. Prof. Dr., Karadeniz Technical University, Faculty of Architecture, Department of Architecture, Trabzon, 61080, Turkey)

It talks about the relationship with sound and architecture in the higher scale and its relationship with music and architecture in the lower scale, similarities, common or differing sides have been appeared as two areas which have been questioned all throughout the history. These similarities, common or differing sides host up almost countless number of concepts and features in themselves such as rhythm, repetition, body, composer, designer. In this paper, the relationship of music and architecture are conferred in terms of the said similarities, common features and differences.

4. CONSISTENCY IN MUSIC ROOM ACOUSTICS

(AKUTEK, Bolstadtunet 7, 3430 Spikkestad, Norway. BREKKE & STRAND Akustikk, Oslo, Norway.)

When an instrument, like the violin, sounds louder at one ear than the other
In the case of a violinist, it is not clear that the musician's foreground is made up by the energy average over both ears. One should also reflect the balance relative to the loudest foreground and dry section. For the violinist, due to the instrument's position at the left bear, these components are found at the left ear

Most other instruments, sound from the instrument would be produced symmetrically without bias to left or right, and thus the balance parameters would not depend on choice of assumptions.
One way to build asymmetric listening into the model could be to use one point receiver for each of the violinist's ears, positioning the left ear closer to the orchestra surface source than the other.

6.ARCHITECTURAL INTERVENTIONS:

- Through architectural design, make Indian classical music more accessible to the general public.
- It will be an endeavor to build an architectural landmark and to give a comprehensive learning and performance setting that is near to nature while remaining within the urban context, establishing a balance in educational traditions, places, and lifestyles.
- The play of light and shade in architecture, as well as the influence of specific types of fenestrations, will be addressed while planning, as they may generate a variety of emotions and sentiments in a space, such as enclosed sanctity, security, freedom, freshness, serenity, quiet, and tranquility. Both visually and physically, the institute should be welcoming.

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The following are the sites that I've referred during this whole study. I've also used information from these sites.

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