THESIS REPORT

NATYA ACADEMY & CULTURAL CENTRE

A Thesis Submitted
in Partial Fulfilment of the Requirements for the Degree of

BACHELOR OF ARCHITECTURE

by

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Under the Supervision of
Thesis Guide
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BABU BANARASI DAS UNIVERSITY
LUCKNOW

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CERTIFICATE

I hereby recommend that the thesis, entitled **"NATYA ACADEMY & CULTURAL CENTRE, NEW DELHI"**, prepared by **SIMRAN SHEKHAR** under my supervision, is the bonafide work of the student and can be accepted as a partial fulfilment for the award of Bachelors Degree in (Architecture) School of Architecture BBDU, Lucknow.

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CONTENTS

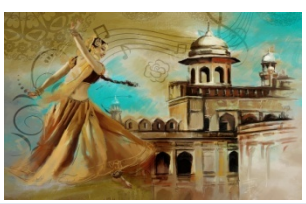
INTRODUCTION

CENTRE OF NATYA ACADEMY AND CULTURAL COMPLEX BRINGS WONDERFUL BLEND OF TRADITION & MODERNITY….[A CULTURAL INSIGHT IN NEW DELHI].

THE CAPITAL CITY OF INDIA AND ALSO THIRD LARGEST IN THE WORLD RANKING,DELHI HAS A RICH CULTURAL HERITAGE.IN FACT DELHI CULTURE IS A FINE **MINGLING OF OLD AND NEW THE OLD DELHI EMBODIES EXQUISITE MONUMENTS,FORTS ,MUSEUMS , AND THE NEW DELHI IS AN EMBLEM OF ARCHITECTURE AND PALATIAL GOVERNMENTAL BUILDINGS MOSTLY OF THE MODERN TIMES.**

NOWHERE WE CAN FIND SUCH AMALGAMATION OF OLD BEAUTIES WITH MODERN TIME AND DELHI CULTURE BECOMES THE TRENDSETTER .VERY RECENTLY DELHI HAS FLOURISHED AS THE MOST VIVACIOUS CENTRE OF INNOVATIVE ARTS IN INDIA WITH MORE THAN TWENTY –FIVE ART GALLERIES ,ESPECIALLY AROUND BHAGWAN DAS ROAD AND MANDI HOUSE .TOURS, CONFERENCES , FILM DISPLAYS AND STUDY COURSES ON ART ADMIRATION ETC ARE OFTEN COORDINATED .TO SUM UP , DELHI CULTURE BLOSSOMS IN ITS CULTURAL FEATURES. MUSIC AND DANCE ,FESTIVALS ,PEOPLES LIFESTYLE BEARS A PROOF OF THIS EMBELLISHMENT OF CULTURE AND TRADITION.

THE IDEA OF THIS PROJECT IS TO BRING ALL CULTURAL ACTIVITIES IN THE CAPITAL TO A SINGLE VENUE AND MAKE IT INTO A BIG CULTURAL AND TOURIST HUB. THE CONCEPT REVOLVES AROUND LIFTING UP THE PUBLIC AREAS WHICH WOULD CREATE LAYERED PUBLIC SPACES FROM WHERE PEOPLE CAN LOOK ON TO EACH OTHER AND HAVE MUTUAL INTERACTIVE PARTICIPATION .THE NATYA SHASTRA IS INCREDIBLY WIDE IN ITS SCOPE .IT COVERS STAGE –DESIGN,MUSIC ,DANCE,MAKEUP,VIRTUALLY EVERY ASPECT OF STAGECRAFT . IT IS VERY IMPORTANT TO THE MUSICIAN BECAUSE IT IS THE ONLY TEXT WHICH GIVES SUCH DETAIL ABOUT THE MUSIC AND INSTRUMENTS OF THE PERIOD. CULTURE PROVIDES IMPORTANT SOCIAL AND ECONOMIC BENEFITS.




HISTORY & BACKGROUND OF CULTURE

THE ART AND CULTURE OF ANY CITY IS REPRESENTATIVE OF ITS IDENTITY AND PERSONALITY. DELHI IN PARTICULAR HAS A STRONG HERITAGE , AND IS RICH IN CULTURE WITH A LONG HISTORY OF DECADES OF DIFFERENT RULING EMPIRES- THE MUGHALS ,THE JAINS ETC. THE CITY'S UNIQUENESS LIES IN THE BLEND OF ALL THESE CULTURES ,THE PERFECT SYNC WITH WHICH THEY COEXIST. HOWEVER WITH MODERNIZATION ,ART SPACES ARE BEING NEGLECTED . SO THE NEED TO BE CONNECTED WITH ITS CULTURAL ROOTS HAS BECOME DOMINANT IN PRESENT TIMES. MODERN GENERATION IS UNAWARE OF THE CULTURE AND HERITAGE OF THE CITY . OVERPOWERING WESTERNIZATION IS LIABLE TO THE LOSS OF TRADITION AND ROOTS. PERFORMING ARTS DO NOT REACH TO MASSES AND HENCE IT BECOMES UTMOST IMPORTANT TO PRESERVE AND PROMOTE THESE ART FORMS AND TO CREATE AWARENESS OF THE PEOPLE TOWARDS GLARIOUS CULTURE OF THE CITY .

"India's precious heritage of music ,drama, dance is one which we must cherish and develop" .
-MAULANA ABUL KALAM AZAD

IMPORTANCE OF THEATRE ART IN MODERN ERA

Theatre in ancient **India** was an **important** medium of communication. There were several dramatists in ancient **India** like Kalidasa and Bhasa who wrote many dramas. They wrote several dramas which made them immortal in the mind of **Indian** audience. ... They had played an **important** role in popularizing dramas in ancient **India**.

In my project I want to implement such theatre art which depicts elitist art form with the wonderful opportunity to explore the human condition and gather them altogether. Theatre art is the intricate part of the human history because it is having the capability to show the best and worst sides of human nature. In a modern world most of the people are having a question about why is theatre important and it is useful to improve creativity level.

TOPIC JUSTIFICATION

NEED OF TOPIC

The form of the Cultural Centre in performing arts expresses its value and need in this rapidly growing urban society where it creates a huge impact urbanistically. It has a futuristic flair which pulls the people passing by towards it, giving such a venue an opportunity of appreciation. The infrastructure in the Indian society is rapidly transforming where at this stage there is an urgent need for such venues which expresses its grace and elegance hand in hand with technological advancements so as to set a standard in the infrastructural world and provides great services which add value in the urban and social realm.

The cultural centre with such a futuristic urban fabric in such a prime location not just creates a change within the district centre but also becomes a hub of cultural activities of such a scale within the whole city.

REASON BEHIND THIS PROJECT

I have been in dancing passion since my childhood and my inclination towards dance art form and other arts brings out an artist in me and I am happy this thesis project gives me a chance to understand the cultural heritage of Delhi something that I really value and cherish to be a part of it . This way I will not only promote my interest in particular but I am sure I will be able to contribute to a greater cause in general. I believe that Tradition and Modernity are not pole apart.

SITE JUSTIFICATION

Delhi Development authority plans to set up socio-cultural centre to come up in northwest Delhi's Rohini ,Sector -12 , spread over 11 acres and the project will cost Rs 350 Crore . BUILT UP AREA-80,000 SQ.M .

AIMS & OBJECTIVES

- ❑ To promote research in the fields of Indian music , dance and drama and to this purpose , to establish a library and museum etc.
- ❑ To cooperate with such similar academies for the furtherance of its objects and for the enrichment of Indian culture as a whole.
- ❑ To encourage the exchange of ideas and introduction of new techniques in regard to the arts of music, dance and drama .
- ❑ To encourage the setting up of institutions providing training in the art of theatre, study of stage-craft and production of plays .
- ❑ To encourage production of new plays by awarding prizes and distinctions.
- ❑ To sponser dance and drama festivals.
- ❑ To take suitable measures for the maintenance of adequate standards in the given field.
- ❑ To provide for an contemporary International iconic center which imparts to the world the rich legacy of Indian performing and visual arts and Indian modernist socio-expression.
- ❑ To analyze the current status of development of District Centres in Delhi.

SCOPE AND LIMITATION

The scope of this project is to make the people aware of their culture as they are being stuck in the fast tech life and also introduce
ancient Indian dance form style .To design the landscapes, gathering space where people will interact with each other.
The thesis will include the study of theoretical models of land-use with a focus on NATYA ACADEMY AND CULTURAL COMPLEX.

The concept of District Centres a sub-city level commercial centre with respect to Delhi as introduced in Master Plan of Delhi will be analyzed. The study will focus on only District Centres of all the types of commercial areas where policy framework, connectivity and market forces would be the factors analyzed for the purpose. Appropriate development framework for future development of District Centres will be proposed based on the analysis and issues thus identified.
The study has a limitation of time and manpower. The time period of study is 4 months with 12 man-days for field survey.

SWOT ANALYSIS

STRENGTHS

-Establish a connection between the people and their culture .
-To create a public space with traditional learning .
-Arts and culture leads to the economic development of the city.
-Provides a platform for creative artistic expression with an emphasis on promoting classical forms of dance , Music and also Painting and other arts.
-Confluence of arts, is an art complex and educational centre.
-It can simultaneously serve as an orientation centre.

WEAKNESSES

-The lack of adequate creative spaces leads to fewer opportunities to local artist.
-Entertainment destinations are unaffordable to many.
-Lacks cultural Landmarks that city demands.
-It also leads to Socio-cultural vaccum .

Oppurtunities

-Social gathering spaces will provide a perspective of observing and designing the elements of architecture in a creative way.
-It will create a responsive architectural design among the urban culture.
-It will provide a chance to amalgamate Tradition with Modernity.
-Cultural centres promote citizen's participation hence intergenerational dialogues.

THREATS

-New media is replacing traditional media such as theatre.
- Awareness regarding educational and social issues are found in lurch.
-Theatre activities are getting extinct .
-Urbanization has become a momentous problem.
- No platform for sensitizational and motivational programmes.

RESEARCH STUDY ON PERFORMING ARTS (cultural centre)

Performing Arts

The Performing arts are those forms of art which differ from the plastic arts in so far as the former uses the artist's own body , face and presence as a medium and the latter uses materials such as clay metal or paint which can be molded or transformed To create some physical art object.

Performing Arts

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Minor Forms	Major Forms	Genres
• Magic • Puppetry	• Theatre – Contemporary ,Folk • Dance – Classical, Contemporary ,Folk • Music- Classical,Contemporary ,Folk • Opera • Circus	• Drama • Tragedy • Comedy • Tragi-comedy • Romance • Satire • Epic • Lyric

MUSIC

Forms of Music in India

The music of India includes multiple varieties of folk, popular, pop, classical music and R&B. India's classical music tradition, including Carnatic and Hindustani Music, has a history spanning millennia and developed over several eras. It remains fundamental to the lives of Indians today as sources of spiritual inspiration, cultural expression and pure entertainment. India is made up of several dozen ethnic groups, speaking their own languages and dialects having distinct cultural traditions.

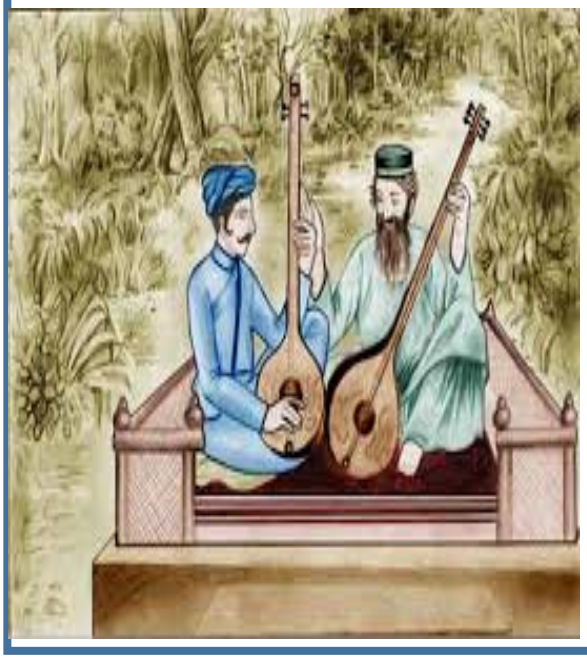
The two main traditions of classical music are Carnatic Music found predominantly in the peninsular regions and Hindustani Music found in the northern and central regions.

Hindustani Music

(Main Article: Hindustani Classical Music)

Hindustani Music is an Indian classical music tradition that goes back to Vedic Times around 1000 BC. It further developed around the 13th and 14th centuries AD with Persian influences and from existing religious and folk music. The practice of singing based on notes was popular even from the vedic times where the hymns in SamaVeda , a sacred text , were sung as Samagana and not chanted . Developing a strong and diverse tradition over several centuries, it has contemporary traditions established primarily in India but also in Pakistan and Bangladesh.

In contrast to Carnatic Music, the other main Indian classical music tradition originated from the South. Hindustani Music was not only influenced by ancient Hindu Musical traditions, historical vedic philosophy and native Indian sounds but also enriched by the Persian Performance practices of the Mughals. During the Medival age especially in the Mughal Era various Gharana became famous due to excellence and class in type of music like raga. almost all from the lineage of Tansen, one of *the Navratan* of the Mughal Emperor Akbar. Classical genres are Dhrupad, Dhamar , Khyal, Taranay Sadra



Carnatic Music

(Main Article: Carnatic Music)

The present form of Carnatic Music is based on historical developments that can be traced to the 15th -16th centuries AD and thereafter. However, the form itself is reputed to have been one of the gifts bestowed on man by the gods of Hindu Mythology. It is one o the oldest musical forms that continue to survive today.

Carnatic Music is melodic with improvised variations. It consists of a composition with improvised embellishments added to the piece in the form of Raga Alapna, Kalpanaswaram, Neraval and in the case of more advanced students Ragam, Tanam Pallavi. The main emphasis is on the vocals as most compositions are written to be sung and even when played on instruments, they are meant to be performed in singing style (known as gayaki). There are about 7.2 ragas (or scales) in Carnatic Music, with around 300 still in use today.

Purandara Dasa is considered the father of Carnatic Music. Sri Tyaga Raja, Sri Shyama Shastri and Sri Mutthu Swami Dikshitarare considered the trinity of Carnatic Music and with them came the Golden Age in Carnatic Music in the 18th -19th Century. Noted Artists of Carnatic Music include MS Subbu Lakshmi , Ariyakudi, Ramanuja Iyengar (The Father of the Current Concert Format), Semmangudi, Srinivasa, Iyer , TN Seshagopalanand and more recently Sanjay Subrahmanyan, TM Krishna Bombay , Jayashri etc.

Every December the city of Chennai in India has its six week long music season which has been described as the world's largest cultural event. It has served for most music in South India including folk music, festival music and has also extended its influence to film music in the past 100-150 years or so.

Musical Trinity of Carnatic Music

DANCE

Dance Form in India

There are many types of Dance in India from those which are deeply religious in content to those which are danced on more trivial happy occasions. Classical Dances of India are usually always spiritual in content, although this is often true also of Folk Dances .

· ***A Land of Contrast and Variety***

India is about extreme vastness, intensity and paradox; all are qualities that describe this ancient culture. The sharp peaks of the Himalayas , the sweltering heat of the great Indian plain , the delicious cool of Kashmir, arid deserts and monsoons in the tropical southwest- all these contrasts and many others are common place in India . Tiny villages where the slow pace of life remains the same as in centuries past are connected to teeming urban centers by dirt roads that seemingly stretch to the horizon. Culturally too India is teeming with variety. There are several sub cultures thriving within the composite Indian Culture. This variety and diversity impart to the Indian Culture – a mystical dimension and rich spirituality.

Kathakali

Kathakali literary means story –play and is an elaborate dance depicting the victory of truth over falsehood. The striking feature of Kathakali is the use of elaborate make-up and colorful costumes. This is to emphasize that the characters are super beings from another world, and their make-up is easily recognizable to the trained eye as Satvik or Godlike, Rajasik or Heroic and Tamasik or Demonic .

Mohini Attam

The theme of Mohini Attam dance is love and devotion to God. Vishnu or Krishna is most often the hero. The spectators can feel his invisible presence when the heroine or her maid details dream and ambitions through circular movements, delicate footsteps and subtle expressions through slow and medium tempos, the dancer is able to find adequate space for improvisations and suggestive bhavas or emotions .

BharatNatyam

Bharat Natyam Dance has been handed down through the centuries by dance teachers (Gurus)called *nattuwanaras* and the temple dancers called *devadasis.* In the sacred environment of the temple these families developed and propagated their heritage. The training traditionally took around seven yearsunder the direction of the nattuwanar who were scholarsand persons of great learning. The four great nattuwanars of Tanjore were known as the Tanjore Quartet and were brothers named Chinnaiah, Ponnaiah, Vadivelu, and Shivanandam. The Bharatnatyam repertoire as we know it today was constructedby the talentedTanjore Quartet.

Kuchipuddi

The dance drama that still exists today and can most closely be associated with the Sanskrit Theatrical Tradition is Kuchipudi which is also known as *Bhagvat Mela Natakam.* . The actor sing and dance and the style is the blend of folk and classical. Arguably this is why this technique has greater freedom and fluidity than other dance styles.

Kathak

- The North Indian dance form is inextricably bound with classical Hindustani Music and the rhythmic nimbleness of the feet is accompanied by the Tabla or Pakhawaj . Traditionally the stories were of Radha and Krishna in the Natwari style (as it was then called) but the Mughal Invasion of North India had a serious impact on the dance . The dance was taken to Muslim courts and thus it became more entertaining and less religious in content. More emphasis was laid on Nritya , the pure dance aspect and less on Abhinay , (expression and emotion).

NATYA SHASTRA – NAV RAS CONCEPT

The Navarasa, in the scriptures refer to the nine **expressions** that humans often show. These are love (shringaara), laughter (haasya), kind-heartedness or compassion (karuna), anger (roudra), courage (veera), fear (bhayaanaka), disgust (bheebhatsya), wonder or surprise (adbhutha) and peace or tranquility (shaantha).

Nataraja-The Divine Dancer

The origin of Indian dance can be traced back to Bharat Muni (a learned saint) who lived between the 1st and the 2nd century and composed a *magnum opus* on dance, which is known in the world as ***Natya Shastra .*** In ancient times, dance was not merely a form of entertainment .On the contrary it was considered a medium of instruction of morality, good values and scriptures and the expression of reality. ***Natya Shastra*** serves as a common text for all the varieties of Indian classical dance forms. It contains elaborate details on various types of postures, mudras and hand movements; depicting different meanings besides the construction of the stage, the art of make- up and lastly by the orchestra.

Natya Shastra further divides classical dance into nritya –the rhythmic elements, nritya – the combination of rhythm and expression and finally natya –comprising the dramatic elements embedded in the dance recital. To appreciate Natya or Dance Drama, an individual needs to possess sound knowledge, understanding and appreciation of Indian Legends and Mythology and Folklore. Hindu Deities like Vishnu, Krishna, Shiva and Lakshmi , Rama and Sita are commonly depicted in these dances. Each dance form also draws inspiration from stories depicting the life and traditional beliefs of the Indians.

Ancient Indian History reveals that several centuries before Christ, India's Art Forms of Dance, Music and Theatre were fairly well advanced. The Performing Arts, i.e., Dance and Music reached the acme of their glory, during the reign of the Chola Dynasty in Southern India.

Dance Forms were nurtured with a purpose in the sacred premises of Temples. Temple dancing was imbued with the idea of taking art to the people and conveying a message to the masses. The temple rituals necessitated the physical presence of mortal women (instead of the ornate, carved figures of heavenly damsels, Apsaras) to propitiate the Gods. The allegorical view of Dance used for the purpose of the pleasing the Devas, was gradually transformed into a regular, service(with deep religious connotations) in the temples of the medieval times.

DANCE

DANCE IS AN ART FORM THAT INVOLVES MOVEMENT OF THE BODY.IT IS NOT POSSIBLE TO SAY WHEN THIS FORM OF ART ORIGINATED; HOWEVER,IT STARTED THOUSANDS OF YEARS AGO.DANCE MAY BE PARTICIPATORY ,SOCIAL, PERFORMED ,CEREMONIAL OR COMPETITIVE.IT IS AN IMPORTANT PART OF CEREMONIES , RITUALS,CELEBRATIONS,AND ENTERTAINMENT. THE SANGEET NATAK ACADEMY RECOGNIZES EIGHT DANCE FORMS– BHARATANATYAM, KATHAK, KUCHIPUDI, ODISSI, KATHAKALI, SATTRIYA, MANIPURI AND MOHINIYATTAM

BHARATNATAYM KATHAK KATHAKKALI KUCHIPUDI

MUSIC

MUSIC IS THE ART OF SOUND IN TIME, EXPRESSING IDEAS AND EMOTIONS IN SIGNIFICANT FORMS THROUGH THE ELEMENTS OF MELODY,HARMONY AND COLOR.TONES OR SOUNDS OCCURRING EITHER IN A SINGLE LINE OR IN MULTIPLE LINES AND THE FEELING OF MOVEMENT OF SOUND IN TIME ARE ESSENTIAL ELEMENTS OF MUSIC.

TWO CLASSICAL FORMS EMERGED IS:-

1.HINDUSTANI (NORTHERN)

2.CARNATIC (SOUTHERN)

NATYA Academy of Dramatic Arts

Study of Dramatic Literature

Classical Indian Drama:

This includes

- The origin of Drama and Natya Shastra.
- Brief knowledge about the chapters of Natya Shastra.
- Introduction to Sanskrit playwrights-Bhas play ,Kalidas ,Shudrak, Bodhayan etc. and their plays .
- Development of Indian plays from classical to modern age ..
- Ras Theory.
- Multidimensional and comparative studies of important Sanskrit plays

Kalidas Play Shakuntala

Bhas's Madhyam Vyayog (Turan Kalangi)

Modern Indian Drama:

This includes

- The state of Indian drama before Independence.
- Development of Indian Drama from past to modern times.
- Extensive study of folk drama of Uttar Pradesh Nautanki Ras Leela, Ram Lila etc.
- Study of the modern plays of Mohan Rakesh, Vijay Tendulkar ,Badal Sarkar, Dharamveer Bharti, Girish Karnad and others with detailed and contemporary analysis.

Western Drama:

This includes

- Origin, element and general study of Arspoetica.
- Special study of Greek and Roman Drama.
- General study of the development of Drama till 17th century.
- Reading analysis of structure of plays in contextto theatre.
- Drama of medieval period in Europe from dark ages to 15th century.
- Study of Greek Plays
- Study of various trendsof Drama from 15th to 17th century.

▪Detailed Study of the plays of Marlow, Ben Johnson, Shakespeare.
▪Aesthetics in the Western Drama .

Shakespear's Hamlet

Basic Stage Craft

Stage Craft:
This includes
▪ Origin and Development of Theatre architecture form.
▪ Stone Age to Greek and Roman era
▪ Introduction to Indian classical Theatre architecture
▪ Study of Theatre architecture of Elizabethan and Renaissance Era.
▪ Necessity of scenic design and its objectives.
▪ The Principles of set designing, practical based on its types of stage drawing and elementary knowledge of carpentry.

Introduction to Stage Lighting
This includes
▪Objectives and its need, knowledge of its various lighting equipments with practical based on its principles of Make-up and Costume Designing with sketches and practical.
▪Stage Craft in Modern Age-importance and introduction to various aspects – importance of stage management and its various aspects, class room exercises are based on stage lighting, make-up , costumes, stage props etc.

LED Stage Lighting

Direction
This includes
▪ Its Elements and History.
▪Contribution of director
▪Theories of production process with practical.
▪Development of directors from Shakespeare to Modern Times with special reference to Reinhardt, Appia, Craig, Duke of Sexe Meiningen etc.
▪Introduction to elements of production process along with practical work

ARCHITECTURAL SIGNIFICANCE of NATYA ACADEMY

Multi dimensional relevance

The institutional space would provide an educational environment for performing and exhibiting. Along with the regular areas, it would initiate research work as a new dimension exploring and preserving the heritage.

Generating a Common Platform

As such the society has lost its links with the industry and the various commercial cum educative spaces would generate a common platform for showcasing dramatics.

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Culmination of the Past with the Future

The industry has not absorbed the changes in technologies and hence has been lagging behind. The new campus space would inculcate both the traditional form while digitalizing certain stage management aspects so that the product so produced can cope up withal the conditions.

Promote Archival Consciousness

The script used in drama is reminder of the lost heritage. The significance of it cannot be ignored along with the diverse manifestations produced. It is an obligation thrust upon us .It is our duty to preserve what we have and pass iyt on to the younger generation.

Cultural Continuity

It is important to find the bonding factor among the society, culture and dramatics and develop it. The media needs to become a part of the normal life of an individual and become integral to his /her routine.

Financial Hub of the Country

Delhi iis the Financial Hub of the Country. It is the place which can give dramatics the platform it deserves.

Not only this ,Delhi is also a cultural epitome .Any splendored city- if has a rich tradition heritage in its vein and is infact a treasure of accumulated human experience of wide variety which now lies buried under the heaps of our neglect and callousness.

Existing Cultural Nucleus

Search for new role models the dormant, critical impulse in the country to bring Indians face to face with new forms of life and literature and to open the way for fruitful cross fertilization of ideas and forms of expression.

Abstract
The idea of architecture as catalyst for social or economical change is not new. Architecture is like most other things, a reflection of our society always try to mirror society's aspiration and beliefs thus has immense potential to mould or change the context both local and global. Such projects not only are practical solutions to community needs but also aims to have a broader effect on communities in which they work relying on the social and economical stewardship of architecture.

Aim of project
1) To create an institute that will be the part of society as an inclusive space by creating an integrated life within educational social entity of school and urban life. By this means campus will not only be used in school hours but it will serve for 24 hours people of island as an open campus with a projection of sharing limited resources efficiently.
2) To create an art magnet by bringing the vernacular artists, blacksmiths, carpenters of Hauz Rani and engaging them in interaction with students to share their skills and ideas with students that would be mutually beneficial for community and campus.
3) To make intervention behave as a catalyst that will regenerate the urban fabric and add new dimension in the context of city, acting as a guideline or path that drives society forward.

Methodology
It involves following stages:-
1) Study of surrounding morphologies.
2) Understanding users comfort levels and designing spaces respectively.
3) Putting thresholds and transitions using physical parameters of distance, eye level, spatial organization, enclosure for achieving required privacy levels in public, semi public and private respectively.
4) Zoning of activities on site according to the interfaces that it will create with surroundings.
– An interface with the urban village through outdoor workshops of school for informal activities and interaction of students with the artists of Hauz Rani.
– Interface with immediate city context. (Here design will respond to city morphology, vehicular movement through road, major node and users like architects, delegates, artist and citizens.
5) Creating space for interaction at different levels:-
Student – student interaction
Student – villagers interaction
Citizens – student – delegates' interaction

MAJOR / MINOR OBJECTIVES

The Major Objectives of the Project can be divided into four Parts : -

1. People it Influences:

✓Artists - Widening their horizons, increasing the contact area .

✓Common Men -Increasing the enthusiasm such that they know and enjoy art in totality .

✓Amateurs - Provide them the necessary infrastructure.

2. **Cohesive Development**

Eastern Guru Shishya Parampara meets the western theatre technologies to form a balanced icon of development. Thus creating Theatre of Synthesis now the 'Universal Heritage'.

3. Lighting Architecture

Organization of spaces not only in plan but also vertically to create drama of light. Adaptation of light as per function. Omnipresent most useful source of energy that can be reflected, refracted and redirected.

Interpretation of light in psychological terms and to use the same in order to provide an influential architectural design .

4. Flexible Theatre

Specialized Stages

In combination i.e. convertible stage- A number of small stages that can be assembled /dismantled like building blocks to accommodate the needs of the performer or of the changing times.

The Modern System :

The modern system of performing arts training consists of studio where the pupils learn and rehearse. The studios are attached to other spaces like lecture rooms, libraries, recording studios etc. Most often they are treated like classrooms for any other subject minus the furniture.

In the present Indian Scenario- there exists a variety of typologies of performing arts schools. From the Gurukul adaptations to contemporary classrooms structure, many systems are followed.

Minor Objectives

The positive use of landscape of the existing site defining architectural vocabulary as created by eminent architects in India and to use the derived results to create a harmonious yet iconic building.

Research Areas and Case Studies

Research

The primary research would focus on studying the various spaces- their meanings, requirements and qualities
Natya academy and cultural complex:
Learning spaces
Performing spaces
Exhibition spaces
Public space

The secondary research would be the case studies and their analysis. The learning outcome would help in the design and will be important part of the research before starting the project.
The following case studies is being done:
Triveni kala sangam, New Delhi
Kala Kendra, goa
Kamani auditorium, new delhi

Overall research would mainly focus on the needs and requirements of the various spaces.

Dance studio requirements

As per NDTA- National Dance Teachers Association, UK are as follows. All forms of dances are taken care of in these specifications:

1. Floor Area

The amount of floor area required depends on three variables: The number of participants normally expected to take part in activities, the age of participants and the type of activity envisaged.

- Realistically, in a cost conscious word, it would be unwise to envisage catering for less than 18 participants.
- A useful use of thumb is to provide a minimum of three sq mtrs for each participants of the primary school age range and five sq mtrs for those in the secondary and tertiary age range.
- Studios have been built with a variety of shapes, oval, circular and with curving walls. Such spaces impose limitations; for many dance activities. It is necessary to be able to locate front and for this reason a rectangular space is most useful.
- 10 m x 9 m is the minimum size, providing space for 18 adults to take part in any dance technique class and providing appropriate dimensions for choreographic work without a feeling of being cramped .

2. Vestibule

A space of 6-12 sq mtrs within the dance studio, but separated from the area of the dance floor , is invaluable. The entrance to the studio should be into this area.

- It accommodates space for any musical instrument /electronic device, visitor's space, locker space etc.

3.Studio height

- The height of the studio relates to the circulation of the fresh air and to the opportunity to jump and lift.
- A plentiful supply of fresh air is necessary for the dancer to replenish energy quickly. But beyond the physiological need the dancer performs best with a sense of being able to expand into space.
- Physically it is important to have a headroom so that the dancer never feels inhibited in achieving height. The opportunity for one dancer to stand on the shoulders of another and raise his/her arms in the air, makes a height of atleast 3.5m ideal. This height gives an appropriate sense of spaciousness,

4. Sound

- It is important that sound accompaniment is heard properly and with clarity within the studio but it is essential that it does not contaminate adjoining the workspaces.
- Sound insulation is a primary structural consideration. Cavity walls are invaluable and these may have baffling material enclosed or on the surface. Inner and outer doors should be close-fitting and solid, with spring closures, and the space between such doors needs to be properly baffled.
- Within the space excessive reverberation from hard surfaces needs to be avoided. Partial walls curtaining has acoustics as well as aesthetic value.

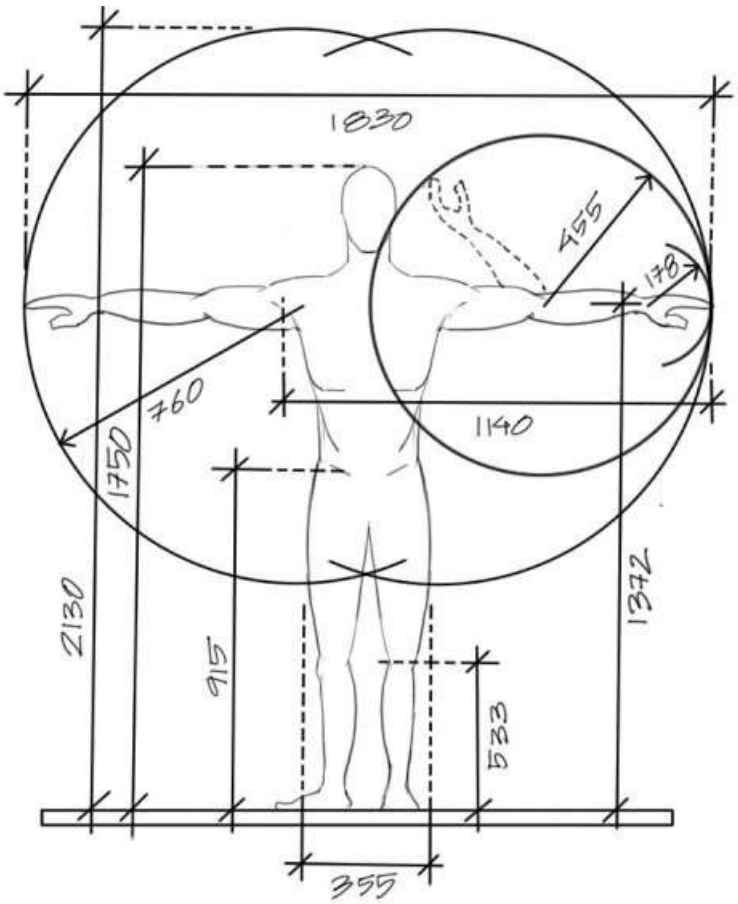
5 .Interior design

A complete wall of mirror up to the height of 2200mm, in which all participants can easily observe the dance image, is ideal. Mirror should have curtaining which is independent of other curtaining, to cover them.

6 .Floor surface

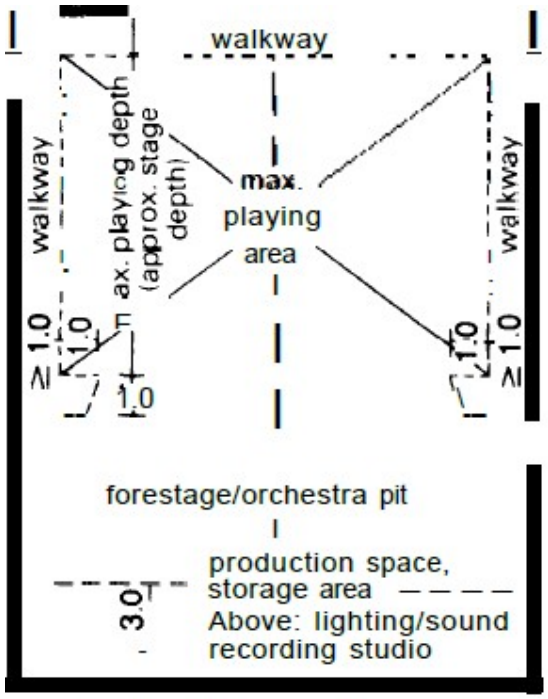
The floor area is most important attribute for the dancer. Every step and jump is responded to by the quality of the floor underfoot. Every dancer step or jump on an unyielding surface wears down the resilience of the body and brings the risk of injury, and the prospect of long term damage, closer.

- The ideal is a fully sprung floor permanently laid and exclusively used for the purpose of dancing.
- Smooth wooden floor is suitable for barefoot dancing. Adequate steps should be taken to eliminate the introduction of grit on the floor as this will cause damage to the surface.

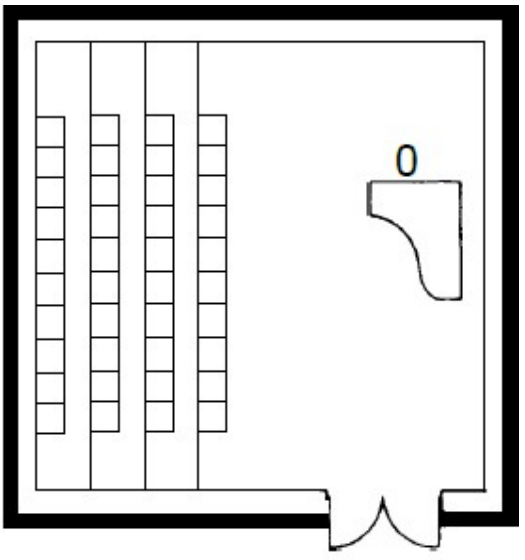


DANCE STUDIO

SPACE REQUIRED BY A PERSON IN DANCE STUDIO



Typical large rehearsal stage (plan view)



ca. 1.4m²/singer, minimum 50m²
ca. 7 m³/singer

(2) Typical choir rehearsal room (plan view)

MUSIC STUDIO

Music studio requirements

The requirements of a music studio is similar to that of dance studio. The music studio classroom needs better acoustics and sound insulation though. The requirements for good rehearsal facilities are:

- Good sound insulation
- Sufficient amount of absorption
- Special requirements for the instruments need to be met like floor and reflecting wall etc.
- Other environmental controls are needed (ventilation, lightning, temperature)

Apart from the group studios, Indian classical music requires space for riyaaz which is individual practise. That doesn't need to be closed. These require a space approx. 10 sqm per room, for a single person. The music studios need to be attached to storage spaces for instruments.

Acoustics

Suitable reverberation time for music rehearsals ranges between 0.6 and 1 second. There are two ways to reduce the reverberation time of a room: either the sound absorption must be decreased or the volume must be decreased. Increasing the sound absorption in a classroom is generally easier to achieve than reduction in volume.

Small music room vary in size and accommodate diverse group ranging from a solo instrumentalist to small music ensembles. Louder instruments need larger rooms. As music students can spend up to 40 hours per week in music practise and rehearsal rooms, these rooms are very important in the daily activity in the music.

Although rooms with non parallel walls, flooring and ceiling are preferred for music rooms, to maximise the utilization of the available space, the rooms are normally designed rectangular in size with floors and ceiling perpendicular to walls. Curved walls are not recommended for small rooms to avoid focussing and undesirable effects.

By controlling the ambient echoes in your music room, you deliver back superior sound quality. Acoustic panels, wall or ceiling mounted, can be introduced in the music studio for the purposes of capturing and converting the echoes from your room. Whether your music room is for teaching, recording or performing, the acoustics inside the room will reach premium quality once the level of reverberation is under control.

Drama Studio Requirements

As per time savers standard, a large drama studio is generally divided into 3 parts:

- A raised platform acting as a stage .
- Some fixed sitting on an inclined floor accommodating about 30 students,

with chairs equipped with movable table arms. Within some individual teaching practises the area might be preferred with a flat floor with movable chairs.

- A flat floor area between the two which acts as the playing area for rehearsal, demonstration etc. the total length of the room in this case is about 20m. For practical reasons these large studios are also used for performances for small scale production.
- A drama studio needs a working space of 120–150m², with an area for performance of about 90m²
- The shape of the room isn't essential, but it must be possible to vary the shape within the volume which can be achieved by curtains suspended on tracking
- The design should provide at least one exit to the open air; two may be needed to meet health and safety requirements
- The studio requires green room or dressing room in all cases along with the storage for props and costumes.
- The stage depth should be at least 4m and height over it more than usual classroom height.

For smaller studios the seating area is omitted. The studio requires green room or dressing room in all cases along with the storage for props and costumes.

Amphitheatre

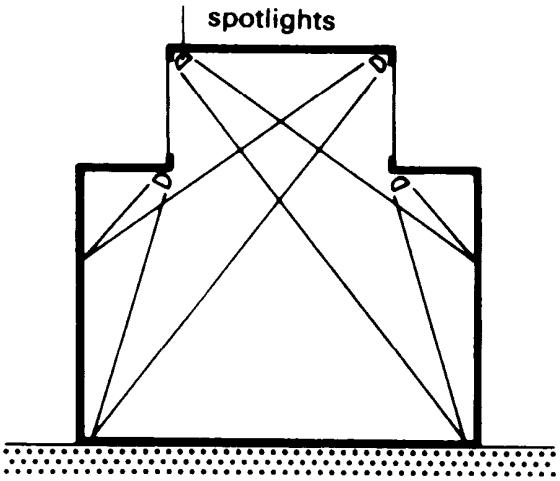
An amphitheatre is an open sir venue used for entertainment, performances and sports. A contemporary amphitheatre, in the sense in which the word has come to be popularly used now, is a curved, acoustically vibrant performance space particularly one located outdoors. Contemporary amphitheatres often include standing structures, called bandshells, sometimes curved or bowl shaped, both behind the stage and behind the audience, creating an area which echoes or amplifies sound, making the amphitheatre ideal for musical and theatrical performances.

One of the first aids to good sightlines is an effective slope. Seats may be set on a rising parabolic curve or on two different inclines, a fairly mild slope for the lower half of auditorium and a steeper slope for the upper half. The slope recommended for the lower portion is 12 and for the upper 24 or steeper.

- Tall trees must form the rear boundary of the theatre as they are very useful in absorbing the external noise and also, lend a nice landscape to the theatre.
- The slope of the floor should be towards the stage and it should be about 12 to 15 degree to the horizontal,
- The shape of the theatre should be such that most of the audience is drawn close to the stage.
- The area of the theatre excluding the stage may be calculated at the rate of 0.8 to 1 sqm per person.

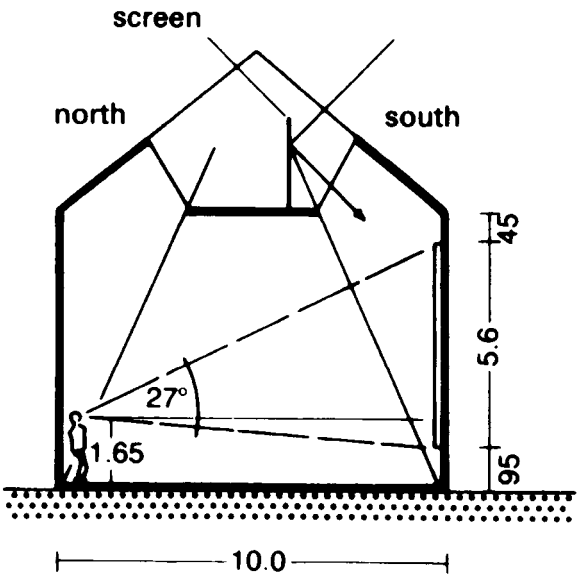
Art gallery

▪ An art museum or art gallery is a building or space for the exhibition of art, usually visual art.
▪ To show the art and painting, institution should provide protection against damp, sunlight and dust .
▪ Exhibits should be displayed in such a way which allows the public to view them without effort.

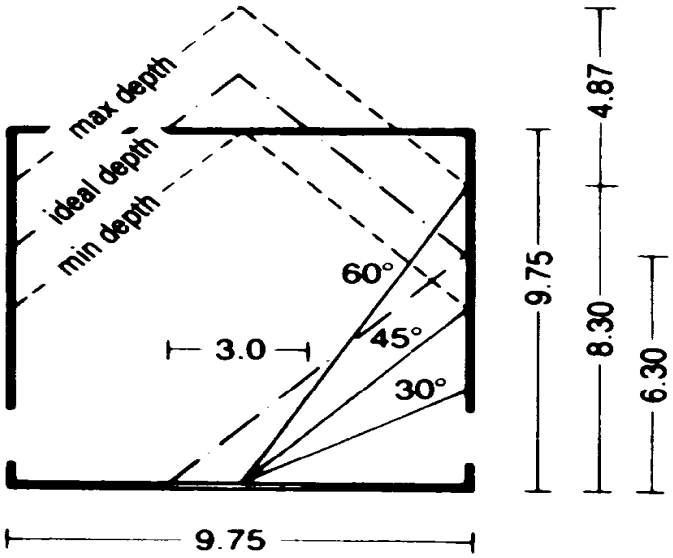


(2) **Install lighting so that angles of incidence correspond with natural light**

▪ The normal human angle of vision starts from 27 degree up from eye level
▪ For a standing person, pictures should be hung 10m away with the top not more than 4.90m above eye level and the bottom about 70cm below.

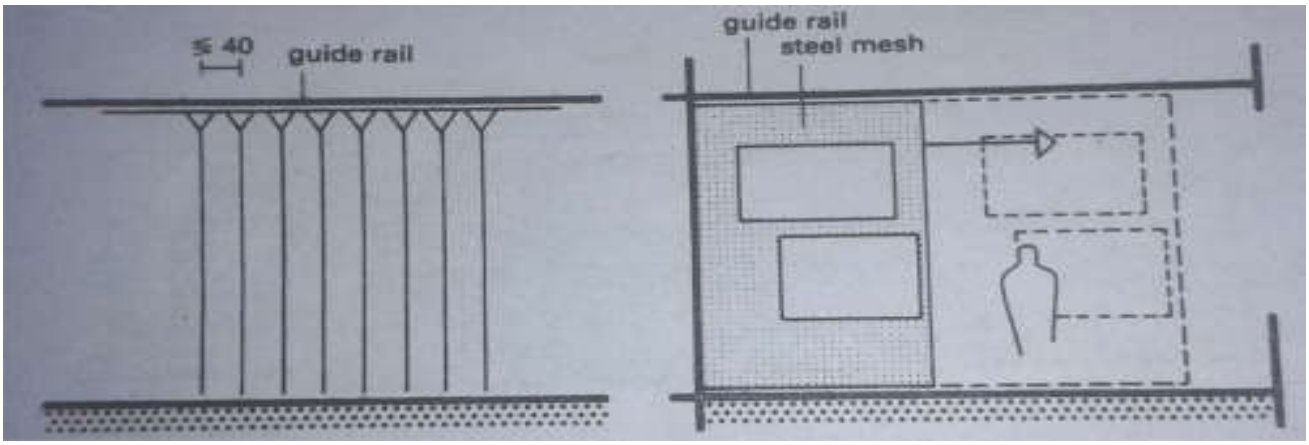


▪ It is necessary to allow 3-5 sqm hanging surface per picture, 6-10 sqm ground surface per sculpture.
▪ A favourably viewing space is between 30*- 60* up, measured from a point in the middle of the floor.
▪ This means a sill height of 2.13m for pictures and viewing range of 3- 3.65 for sculpture.

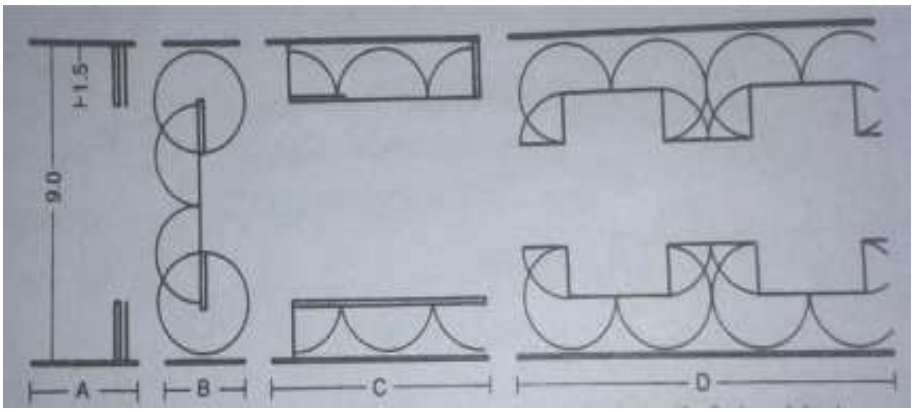


(10) Exhibition room with side lighting

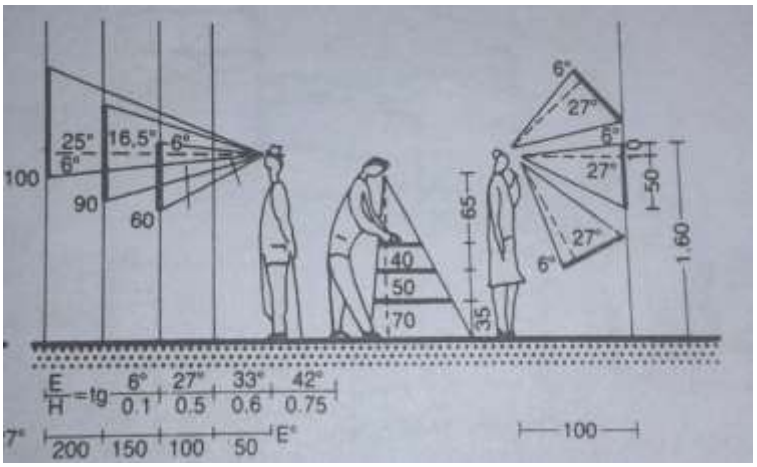
▪ There are no continuous circular route, just separate wings.
▪ Art galleries need rooms for packing, dispatch, administration, slide section and lecture rooms, if necessary.

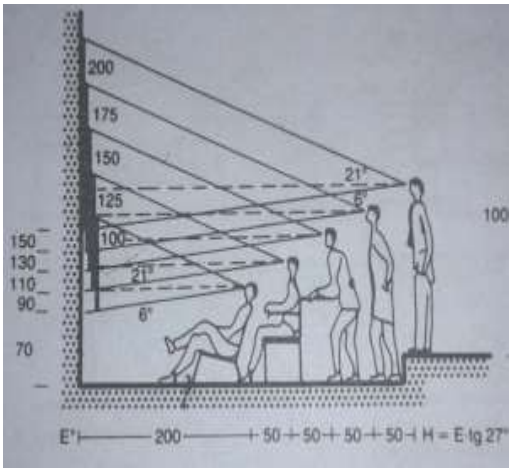


SLIDING STEEL MESH FRAMES ON WHICH PICTURES CAN BE HUNG AS DESIRED & BE AVAILABLE FOR STUDY



EXHIBITION ROOM WITH FOLDING SCREEN ALLOWS GREAT VARIETY OF ROOM ARRANGEMENS



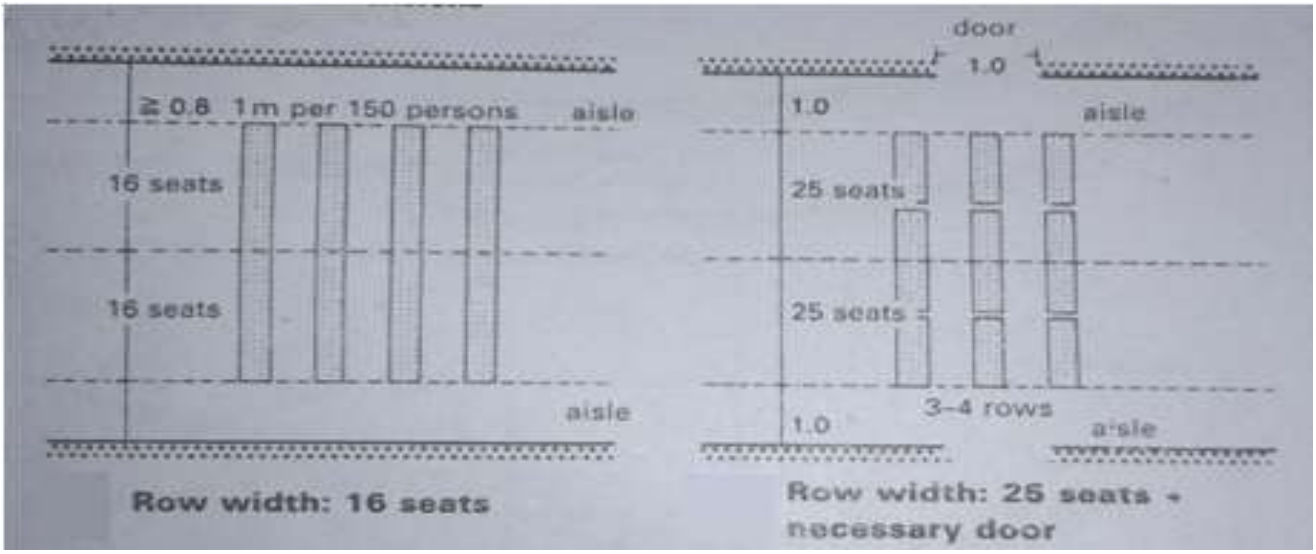


FIELD OF VISION : height/size and distance

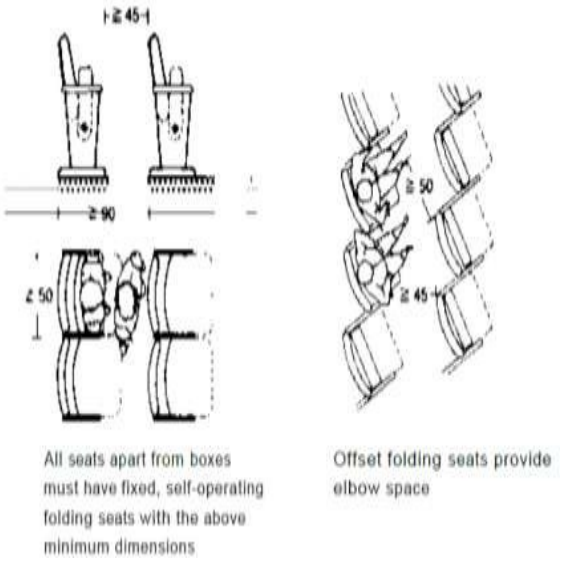
AUDITORIUM

A room built to enable an audience to hear and watch performances at venues such as theatres.

- Requirements to consider in a auditorium are acoustical, illumination, doors, communication, and safety measures etc.
- Provide carpet in the aisles and forward area, a hardwood floor on the stage, in front of the main curtain, softwood elsewhere.
- Provide sound shaping devices as required for proper acoustics in the auditorium.
- Fluorescent house system, stage lighting system, with means of lowering the fixtures for service.

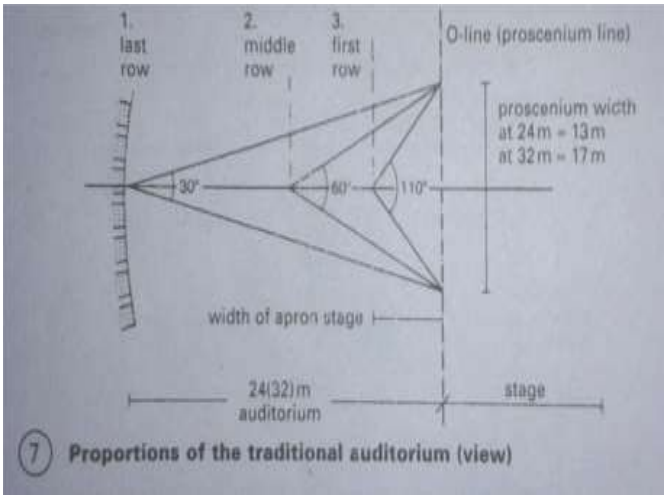


LENGTH OF ROWS: max. 16 seats per aisle or 25 seats per aisle if one side exit door 1m wide is provided per 3-4 rows .



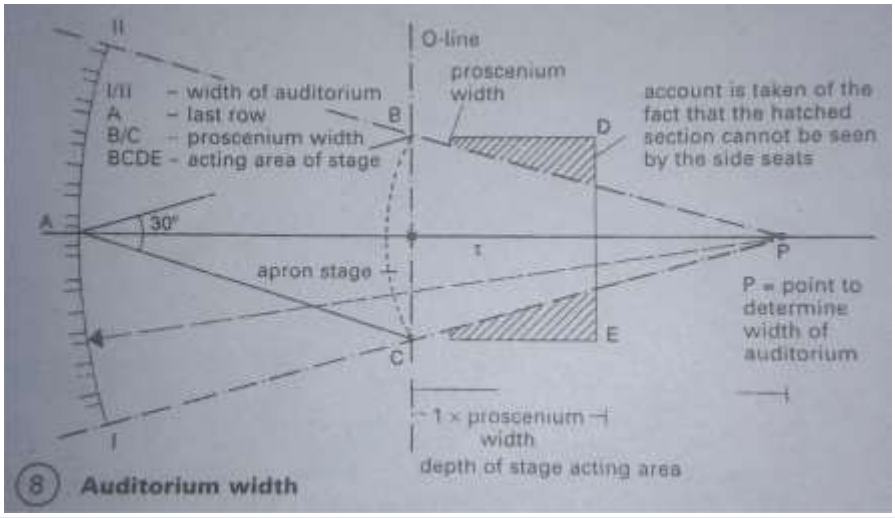
All seats apart from boxes must have fixed, self-operating folding seats with the above minimum dimensions

Offset folding seats provide elbow space



7 **Proportions of the traditional auditorium (view)**

SIZE OF AUDITORIUM : area of 0.5m²/spectator is for sitting.

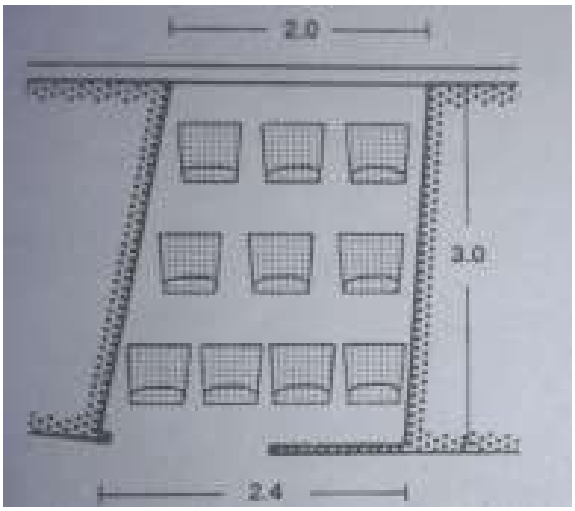


8 **Auditorium width**

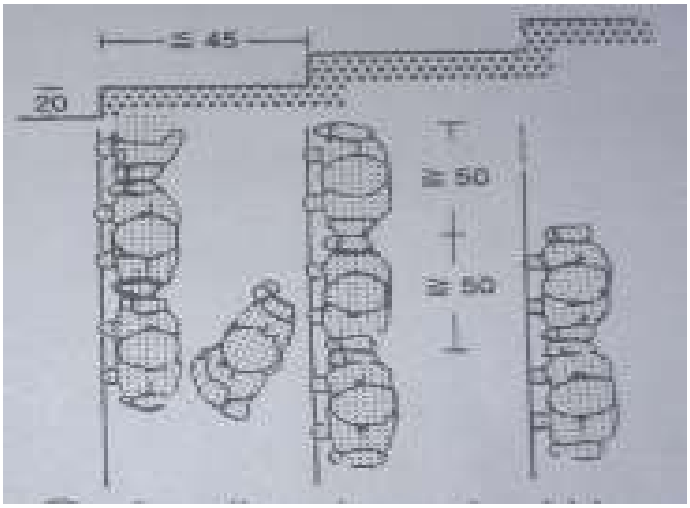
WIDTH OF AUDITORIUM :- from the fact that spectators sitting to one side should stillbe able to see the stage clearly

: PROPORTIONS OF AUDITORIUM : obtained from spectator's psychological perception & viewing angle as well as the good view from all seats.

- Good view without head movement, but slight eye movement of about 30^{o} .
- Good view with slight head movement and slight eye movement approx. 60^{o}.
- Maximum perception angle without head movement is about 110^{o}.
- With full head and shoulder movement, a perception field of 360^{o} is possible.

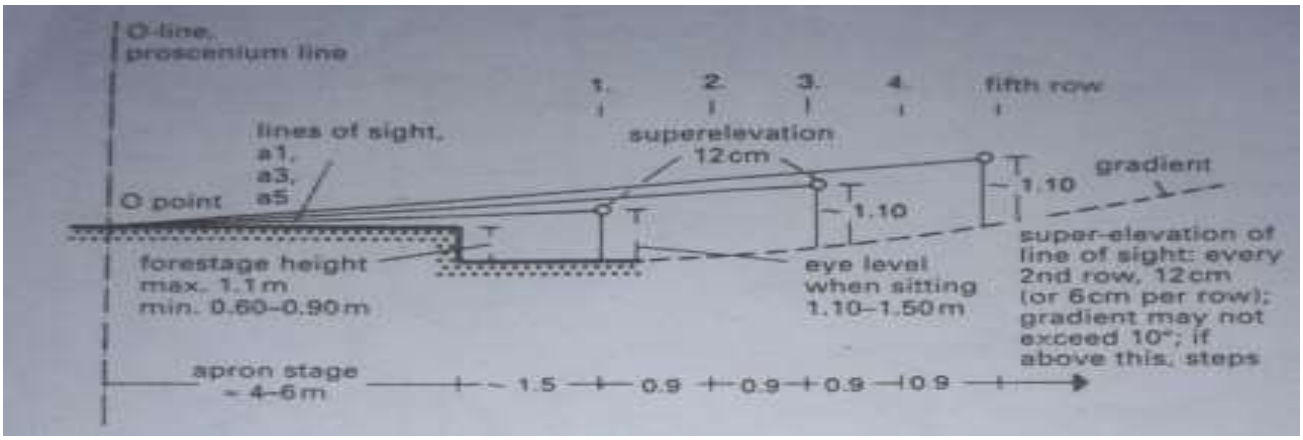


BOXES MAY HAVE UP TO 10 LOOSE CHAIRS, ELSE FIXED CHAIRS HAVE AREA MINIMUM 0.65M² PER PERSON

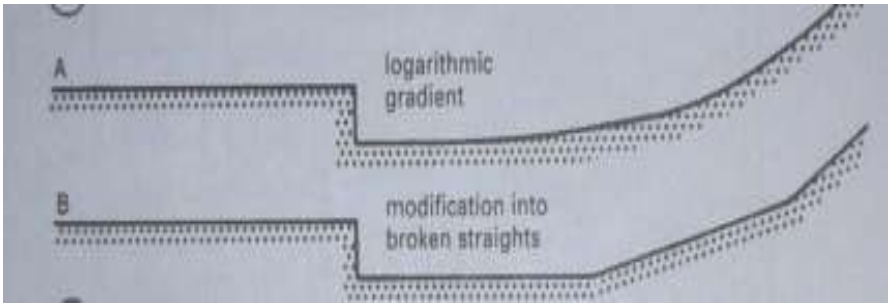


STANDING PLACES SHOULD BE ARRANGED IN ROWS, SEPARATED BY FIXED BARRIERS ACCORDING TO MINIMUM DIMENSIONS

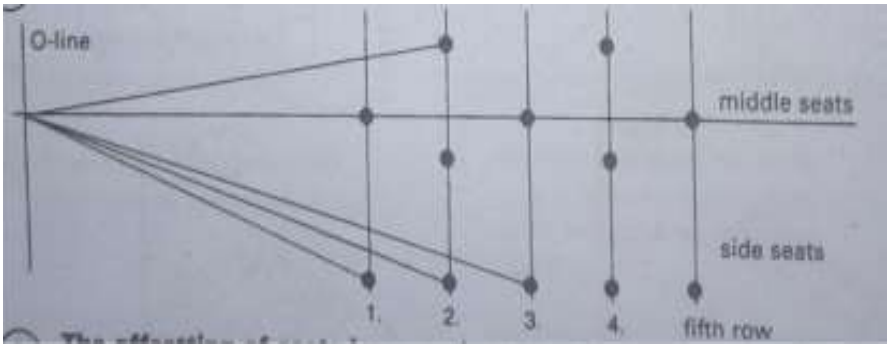
- Since spectators sit in gaps, only every second row requires full sight elevation (12cm).
- Rows of spectator should be formed in a circular segment with respect to the stage, not just for better alignment but also to achieve better mutual perception.



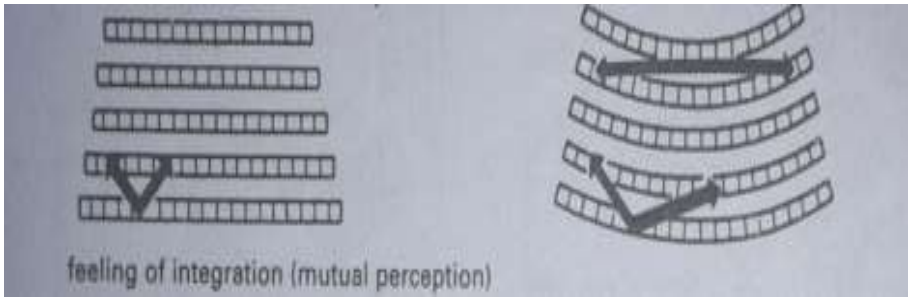
SUPER ELEVATION OF SEATING



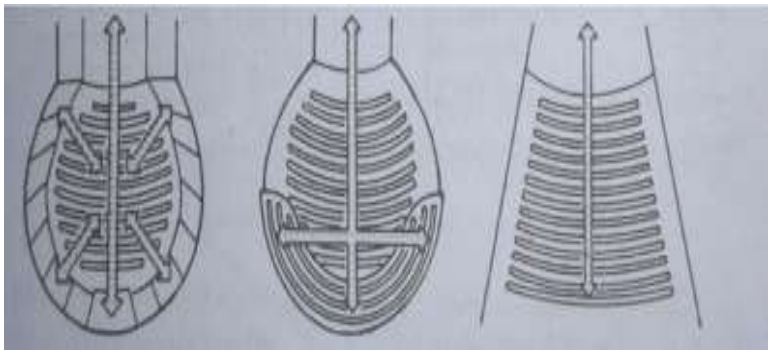
GRADIENT CURVE AND ITS MODIFICATION



OFFSETTING OF SEATS IN ROW IS ACHIEVED BY DIFFERENT SEAT WIDTHS (0.50-0.53-0.56



CONTACT RELATIONSHIPS B/W PUBLIC & STAGE & AMONG ONE ANOTHER



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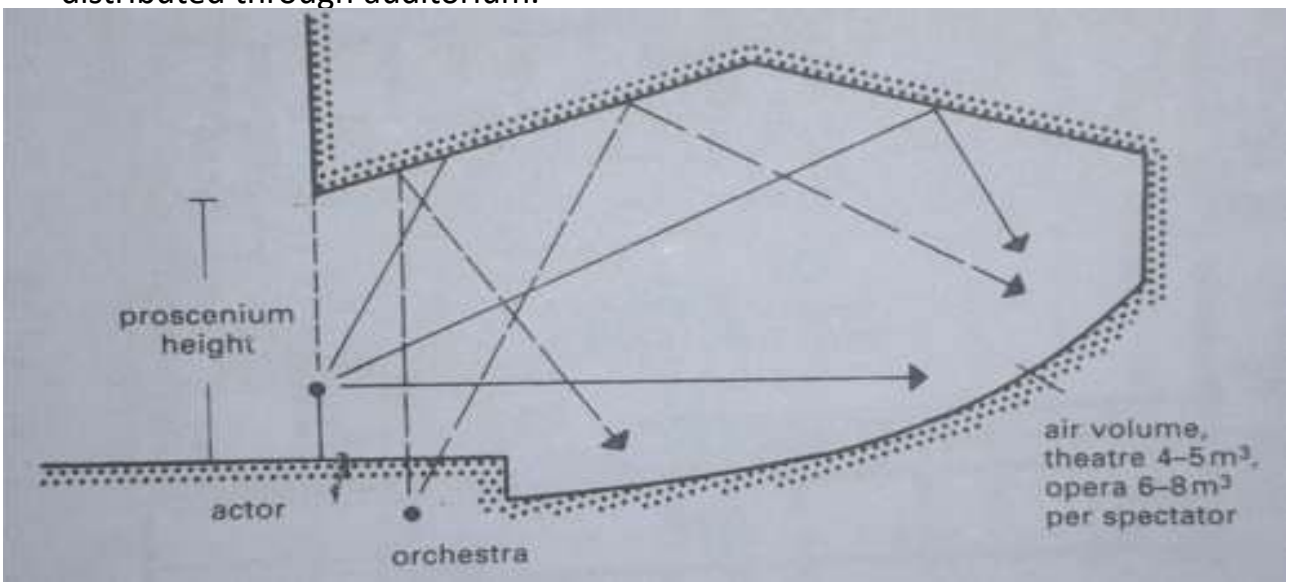
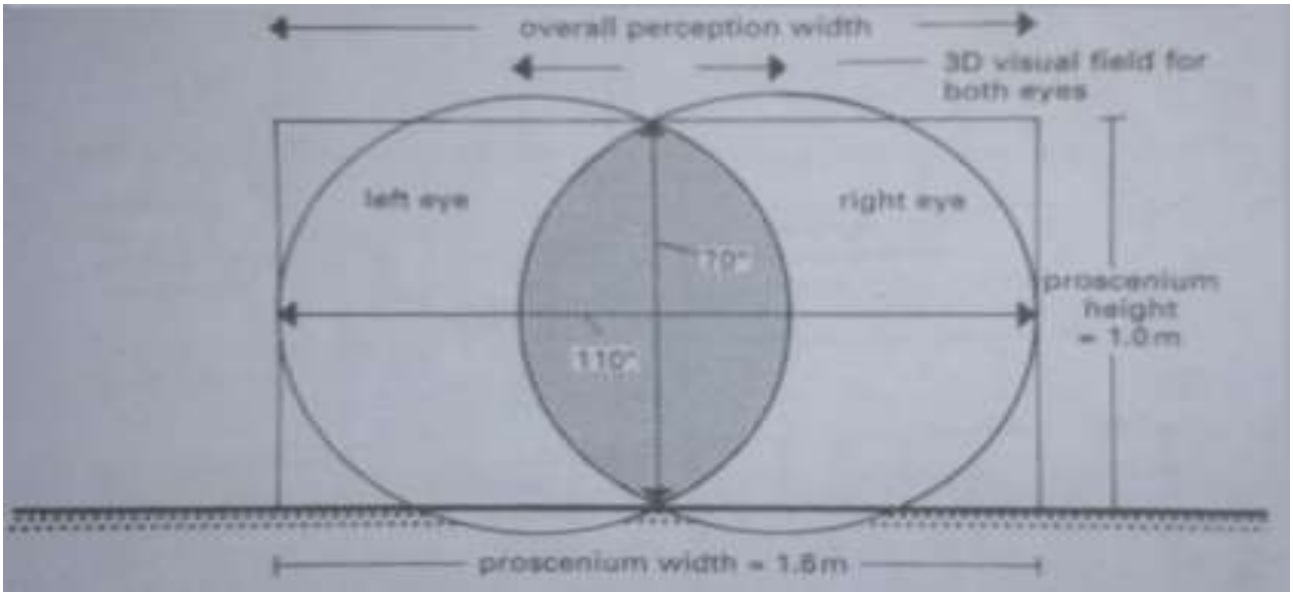
- Exits: 1m wide/ 150 people should be provided or min. 08m.
- VOLUME: 4-5M^3 THEATRE OR 6- 8M^3 FOR OPERA PERSPECTATOR.
- 99 seats*0.6m^2 needs a stage area of 60m^2(2/3)+30m^2(1/3) i.e., 90- 100m^2.
- A room proportion of 1:1:6 is the best option for multiple use.
- Proscenium height should be determined first. Then apron height, banking of the stalls & volume of auditorium are determined.
- Lines of ceiling are obtained from acoustic requirements.
- Aim should be for the reflected sound from stage or apron to be equally distributed through auditorium.



CEILING SHAPE AND SOUND REFLECTION



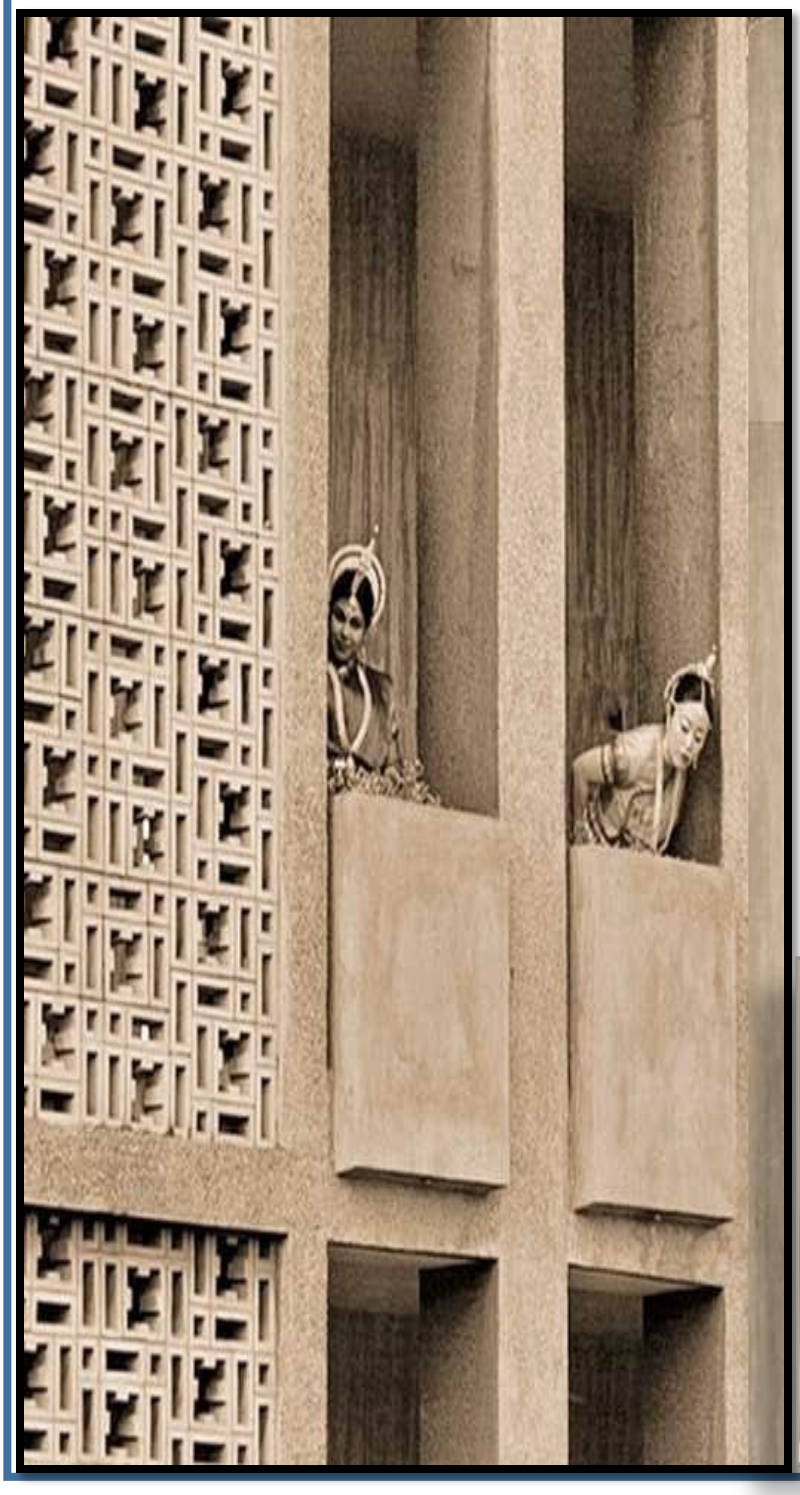
PROSCENIUM HEIGHT : WIDTH = 1 : 6

ṠTAGES

- Stage Forms: Full Stage, Small Stage & Set areas
- Full Stage: More than 100m^2 of Stage area. Stage ceiling more than 1m above top of proscenium arch.
- Small Stage: Area no more than 100m^2, no stage extension (secondary stages), stage ceiling not more than 1m above top of proscenium.
- Set Areas: Raised acting areas in rooms without ceiling projections.
- Stage proportions are developed from the lines of vision from the auditorium. The stage area is the playing area plus the walkways (around the back of stage) and working areas.
- Stage Ventilation: Means should be provided for ventilating smoke and hot gases resulting from fire on the stage e.g.- provision of haystack lantern light or fire ventilator sited in highest point in roof over stage and as near to center of stage as is reasonably practicable. An additional fresh air inlet may prove effective.

CASE STUDY 1

[SITE STUDY]

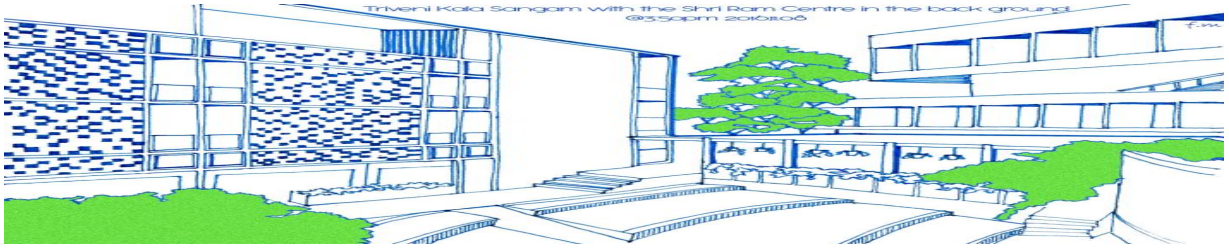


TRIVENI KALA SANGAM

INTRODUCTION

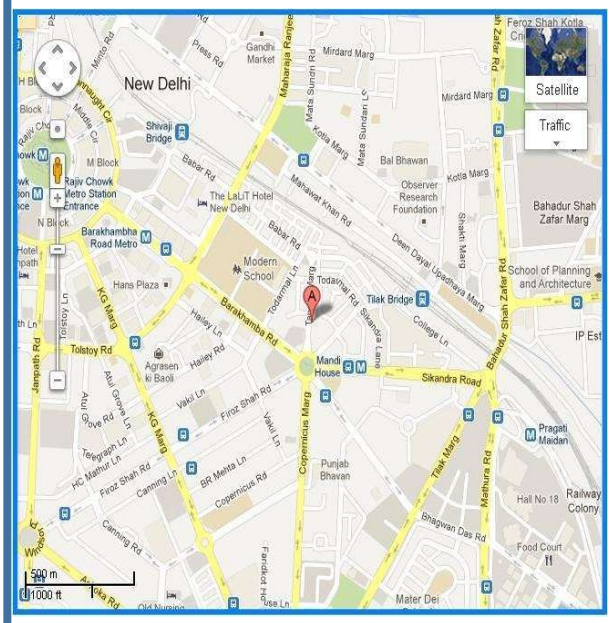
THE TRIVENI KALA SANGAM WAS FOUNDED IN 1952 AS AN ACADEMY OF DANCE, MUSIC AND PAINTING WITH AN AIM OF REINTRODUCING TRADITIONAL FORMS OF EXPRESSION INTO INDIAN LIFE. The name '**Triveni Kala** Sangam' was coined by flautist, Vijay Raghav Rao and literally meaning "confluence of arts".

Architect: Ar. Joseph Allen Stein

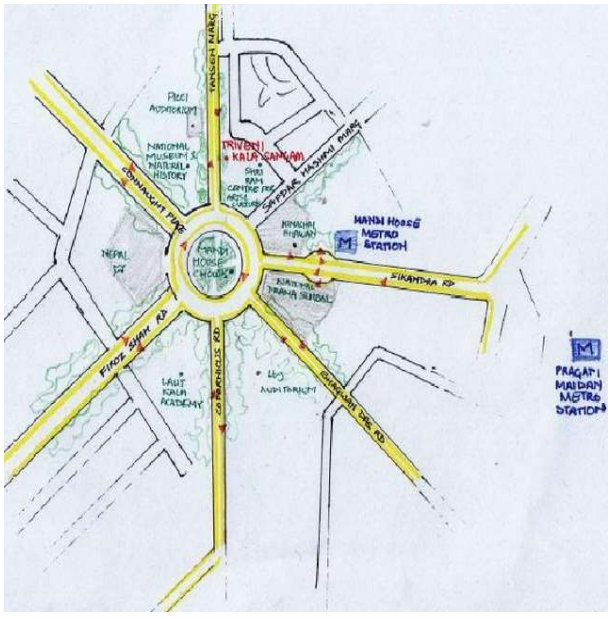


•LOCATION

- ❑ THE CENTRE IS SITUATED ON A SMALL PLOT OF ABOUT ONE ACRE AT TANSEN MARG NEAR MANDI HOUSE ROUND ABOUT.
- ❑ THE OTHER INSTITUTES THAT SURROUND IT ARE THE SANGEET BHARATI, SRI RAM CENTER, RABINDRA BHAWAN, SAPRU HOUSE AND THE SRI RAM BHARATIYA KALA KENDRA.



LOCATION



KEY MAP

TRANSPORT

Triveni is close to cultural hub of delhi, mandi house area , and behind Shri Ram centre for performing arts . It is accessible by Mandi House Underground station of delhi metro , blue line .

HISTORY

- The idea of starting a dance institution in Delhi was raised by Sundari K. Shridharani, a former student of dancer Uday Shankar, in 1950when she had just moved to Delhi after marriage. The name 'Triveni Kala Sangam' was coined by Flautist, Vijay Rgahav and literally meaning "confluence of arts".

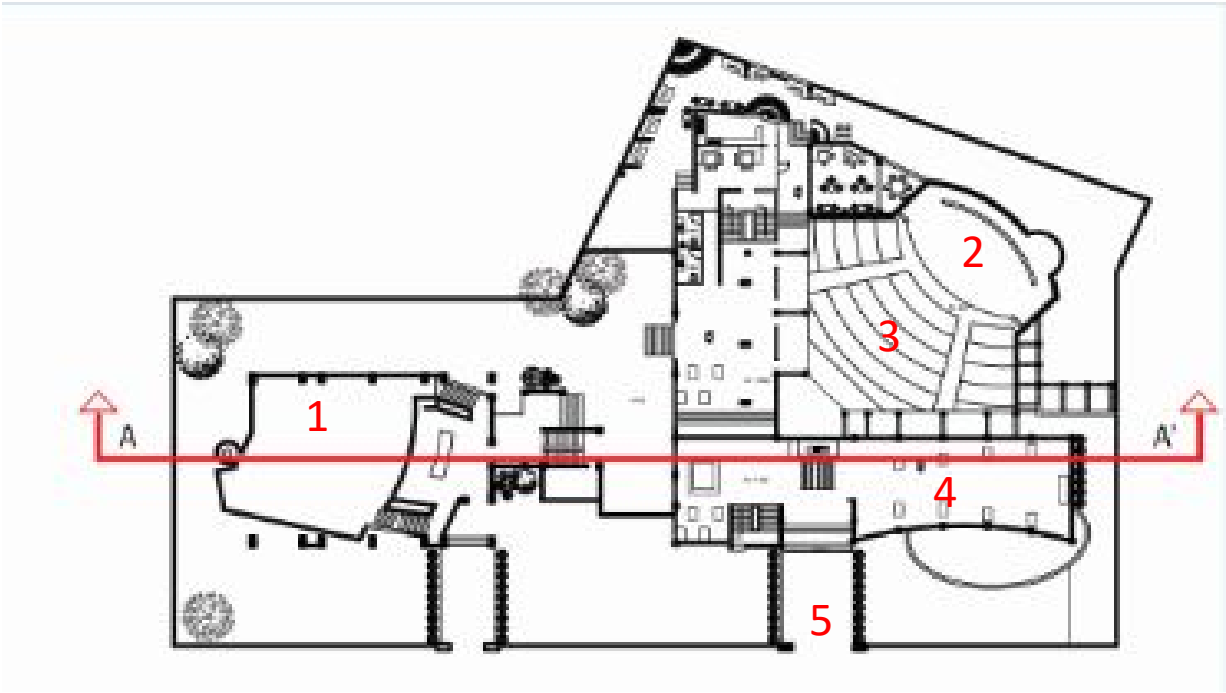
- It started in one room above a Coffee House in Connaught Place Delhi, with two students under noted artist K. S. Kulkarni. Soon her efforts got noticed, and Pandit Nehru allotted her the land for the institution. Gradually, she organized a small group of people, started organizing concerts, and collecting funds. Guru Rajkumar Singhajit Singh joined Triveni in 1954, as Head of the Manipur Dance Section, and later in 1962, founded the 'Triveni Ballet' of which he was Director and Principal Dancer.

Site Area: 7000sqft
Vicinity: The site is located in the cultural hub of Delhi in Mandi House. It is accessed by mandi house metro station and bus terminal.
Functions: It comprises of art galleries, art workshops, Oat, Dance and music studios and an auditorium of 150 people.

Concept

❑ Extensive areas of jaalis and planting boxes arranged into vertical gardens are prominent elements at the triveni.
❑ Jaali panel create a cool space of filtered light in the classroom buildings' corridor.
❑ Use of jalis on the exterior to cope up with delhi's hot weather.
❑ The colours of the façade are of light grey concrete and have grit finsh on the walls.
❑ The textures are rough and rugged.
❑ lack of bright colours is soothing as the abundant greenery adds brightness the art center has been given raw look through rough cut stone along with concrete blocks with plastered finish which goes along well with open green spaces .

ARCHITECTURAL PLANNING



1. AUDITORIUM
2. STAGE
3. OPEN AIR THEATER
4. ART GALLERY
5. MAIN ENTRY

SPACES

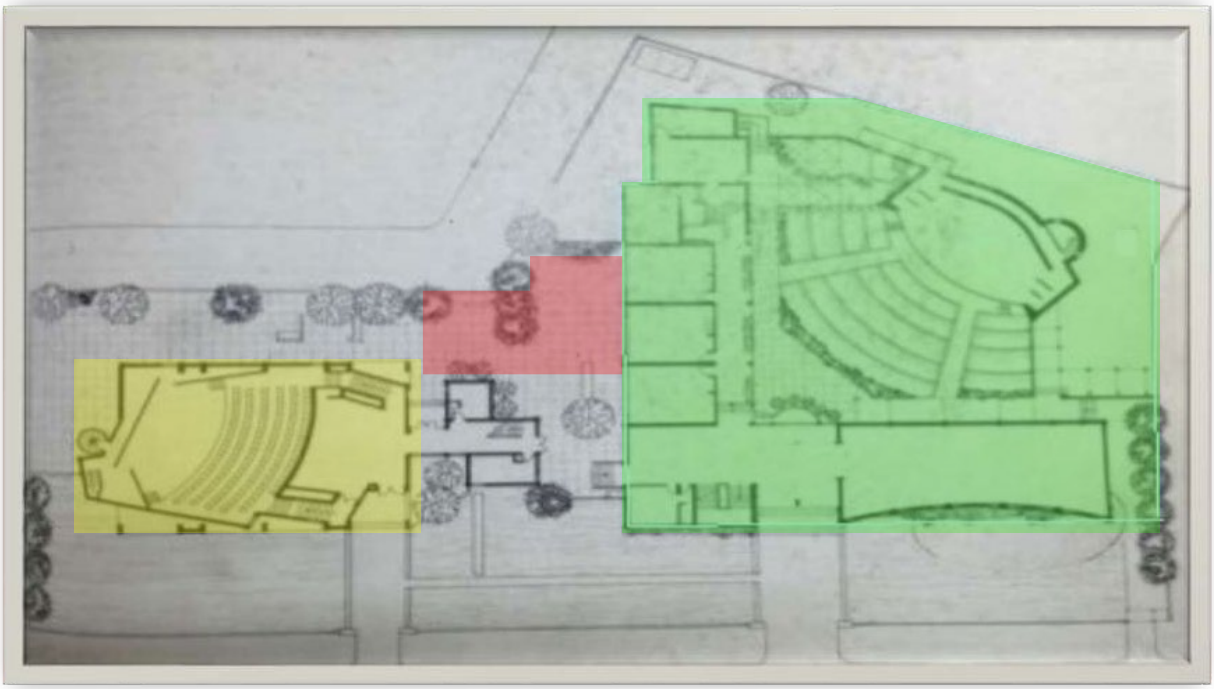
Basically the space of kala bhawan/Kendra is divided into three parts as follow:

1.formal : space used for any presentation, audio or visual programs formally.

2.informal : spaces where people gather for social activities like sculpture court (with sitting space provided) etc.

3.semi formal : where formal and informal activities takes place : OAT, cafeteria etc.

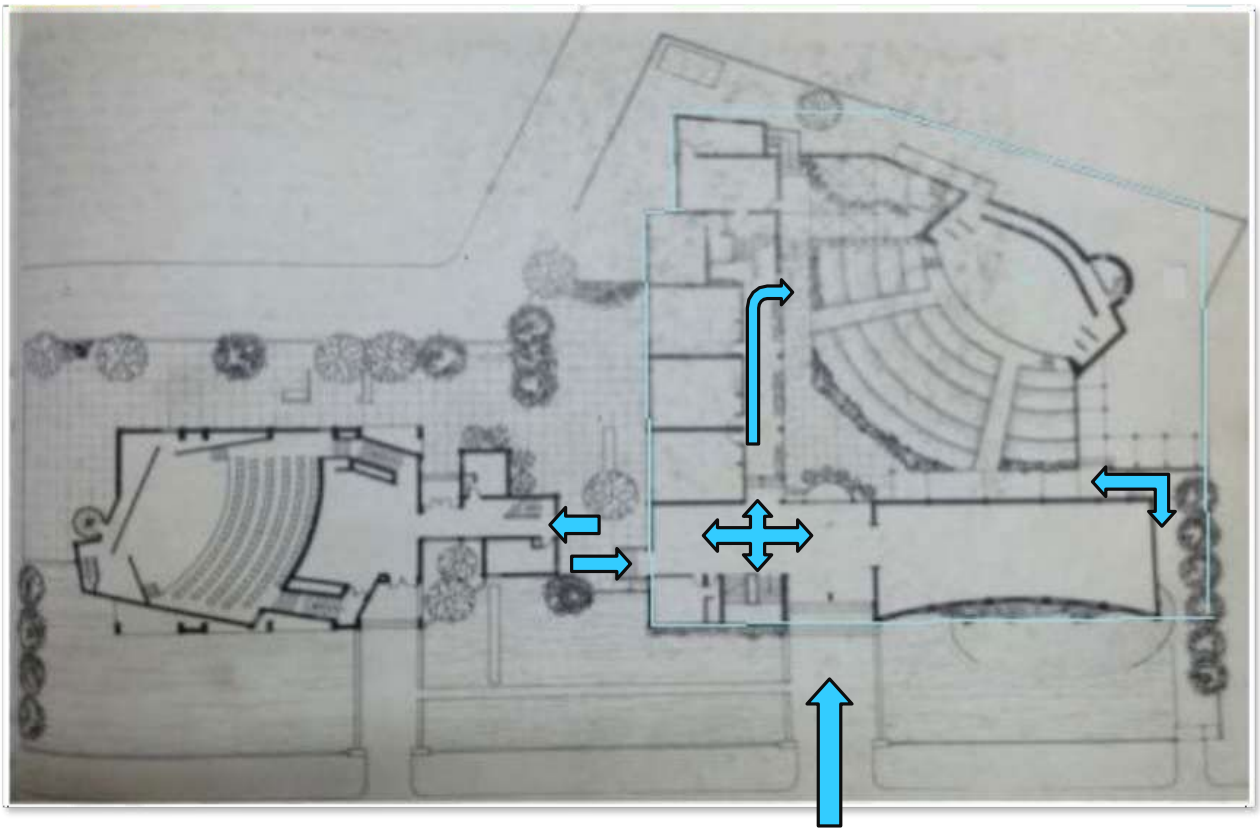
- There are three entry gates in Triveni kala kendra, one is main entry which leads to office and classrooms, another one is for Auditorium, photography studio (formal space) and third gate is for O.A.T.
- There is a corridor in front of Admin. Office which connects both the buildings of triveni kala .
- This corridor leads to an open space which is used for sculpture court.



FORMAL SPACE

INFORMAL SPACE

SEMI -FORMAL SPACE



CIRCULATION IN TRIVENI KALA SANGAM

DIFFERENT ACTIVITIES IN TRIVENI KALA SANGAM

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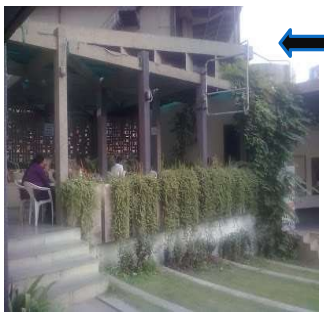
- ❑ The Kendra also have a cafeteria which named as 'terrace restaurant' which serve for the guests, audience, artists and other peoples.
- ❑It seems that foyer has been converted into terrace restaurant because of the temporary material used in roofing.
- ❑It has high plinth level and low ceiling.
- ❑Various types of performing art classes are going in Triveni kala Kendralike music, dance, paintings and sculpture making etc.
- ❑There are four art galleries in kendra
- Shridharni Gallery, Art Heritage Gallery,
- Triveni Gallery and a basement gallery
- run by Art Heritage.

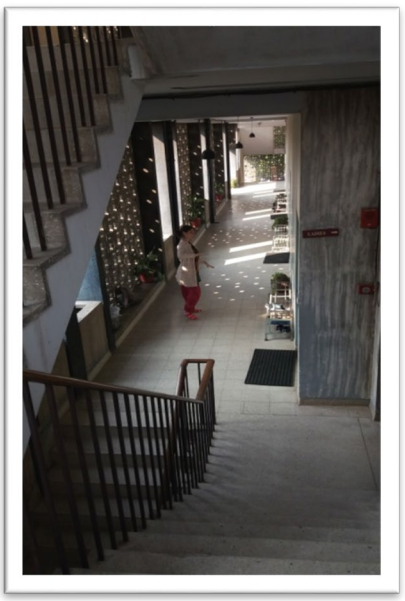
CAFETERIA



OPEN AIR THEATRE

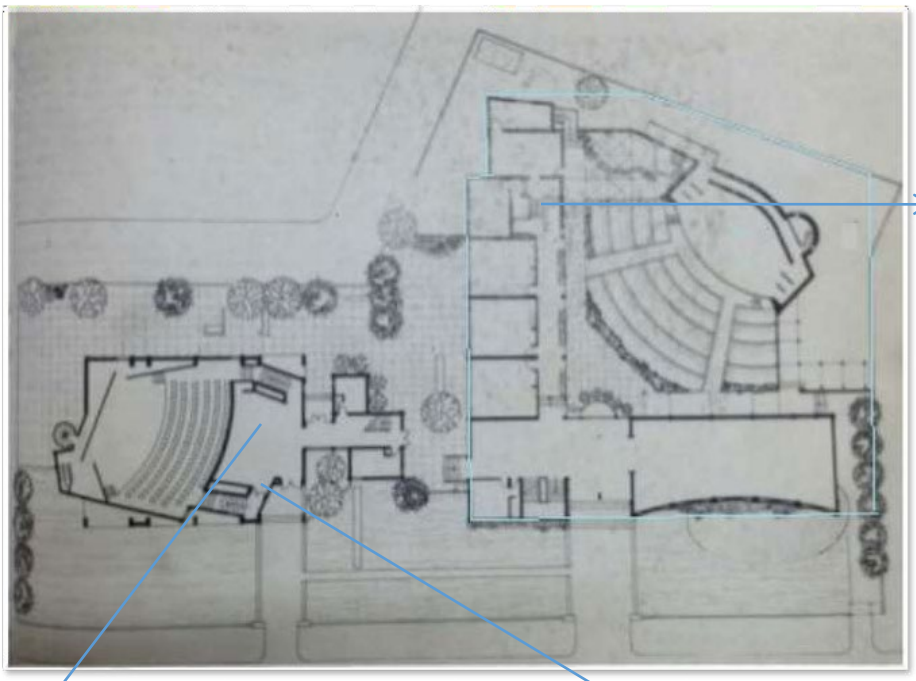
SHRIDHARNI GALLERY

PERGOLA ON ROOF



JALI PATTERN CORRIDORS

SERVICES IN TRIVENI KALA SANGAM



TOILET-MALE & FEMALE ON 3rd & 4th FLOOR, RESPECTIVELY NEAR THE STAIRS WITH CAFETERIA

TOILET-MALE & FEMALE ON 3rd & 4th FLOOR, RESPECTIVELY

GENERATOR/POWER ROOM PROVISION ABOVE AUDITORIUM

INFERENCES

- Triveni Kala Kendra is easily accessible.
- Triveni kala Kendra has a systematic and a good arrangement of spaces.
- It is well orientated to receive more daylight.
- Arrangement of space are in such a manner that the activity does not clash each other.
- Open air theatre is in east-south direction so that in day time theevents does not require any artificial lighting.
- Formal and informal space has their separate entry/exits, without disturbing other activities.

DESIGN CONCEPT . Perfectly synchronized interior & outdoor spaces having provision with the clarity in functioning of each and every space. . Large number of functions to be handled on a small site. . A high degree of flexibility required for various functions.

AUDITORIUM

❑. The entrance to auditorium is through an entrance lobby which is also served as display cum exhibition space. .

❑ The auditorium has seating of 250 people and has on entry and one exit point. . The interior is done with wooden panels, the flooring is also wooden.

❑. There are only side aisles in auditorium. .

❑ The projector room is at rear end.

❑ Stage lights concealed in depth of coffer slabs. .

❑Coffered ceiling in expose concrete with a few acoustical panels, placed randomly. .

❑Glass wool is used as an material behind wooden panels.

❑. For exclusion of external noise, ducts treated internally with sound absorbing lining.

❑Control room located behind audience seating has both sound & light control.

STAGE:

❑ THE WOODEN FLOORING HELPS IN SOUND ABSORPTION.

❑ THERE ARE SPOT LIGHTS AND PROFILE LIGHTS FOR THE PERFOMERS.

❑ THE PROJECTION ROOM IS LOCATED AT THE REAR END OF THE AUDITORIUM

WALLS

❑ **WOODEN PANELS** WERE PROVIDED TO ABSORB SOUND AND HELP IN FURTHER ACOUSTIC TREATMENT.

❑ **GLASS WOOL** WITH A PROTECTIVE LAYER OF CLOTH IS PROVIDED BEHIND THE WOODEN PANELS FOR BETTER SOUND ABSORPTION.

❑ NO ACOUSTIC TREATMENT IS PROVIDED IN THE BACKSTAGE AS THE WALLS ARE PLASTERED ONLY.

❑ EIGHT EMERGENCY LIGHTS AND SPEAKERS WERE LOCATED ON THE REAR AND FRONT WALLS RESPECTIVELY.

FLOOR

❑ IN THE SEATING AREA **CARPETS** AREA LAID OVER A LAYER OF JUTE WHICH IS PASTED ON WOODEN PLANKS.

❑ IN THE BACKSTAGE AREA A **COMBINATION OF CARPET AND WOODEN** FLOORING EXISTS

MERITS & DEMERITS .

❑ The sculpture court provide opportunity to work in an open atmosphere.

❑ .Large number of functions to be handled on a small site.

❑ .All floor provide planter into exterior wall, creates good environment. .

❑The light and ventilation is taken care by providing window opening on whole length of wall north side. .

❑A large green lawn enhance the landscaping.

❑.Separate entries for gallery, exhibition hall and cafe.

❑Architecture features with plaster facade as well as planter into wall pedestrian movement & vehicular movement is done along the periphery of site. .

❑Triveni Kala Sangam built on rectangular which is internally divided into various functions. .

❑There is no parking space, vehicles have to parked main road & paring space is not sufficient. .

❑ The two heavy massed blocks rise up to 4 storey & are a response to tight program within the tight site.

❑ . 4 storey building but not provided any lift.

INFERENCES .

❑ Despite of a tight program, a feeling of a spacious has been achieved by incorporating the O.A.T as a multifunctional space. .

❑ The parking is done along the roadside which creates a little traffic problems.

CONCLUSION :

❑Triveni Kala Kendra is easily accessible.

❑ Triveni kala Kendra has a systematic and a good arrangement of spaces.

❑It is well orientated to receive more day light.

❑Arrangement of space are in such a manner that the activity does not clash each other.

❑Open air theatre is in east- south direction so that in day time the events does not require any artificial lighting.

❑Formal and informal space has their separate entry/exits, without disturbing other activities.

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CASE STUDY 2

[SITE STUDY]

RAVINDRA BHAWAN

“Rabindra Bhawan, which was nominated for the Aga Khan award in 1980, was the first building where I could free myself from the influence of Walter Gropius. This building belongs to India. Here I used tradtional Indian elements such as chhajjas, jalis and overhanging roof. It was the first functional building to give me aesthetical satistfaction. Maybe it was Rabindranath’s artistic genius that inspired me to give an emotionally moving quality to the building. I feel proud to have been able to design memorials to both the Mahatma and Gurudev.”
Rahman Habib 1965

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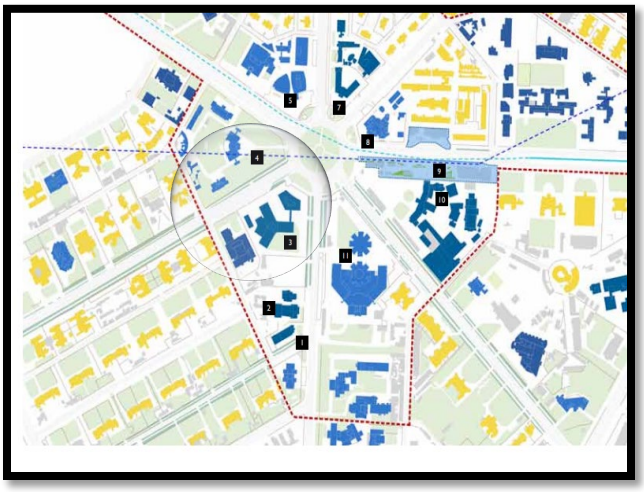
INTRODUCTION

Rabindra Bhavan was built in 1961 ,New Delhi to mark the birth centenary of Tagore, who in addition to being a poet and novelist, was an artist, playwright and composer. The building is thus the home of three National Academies: *Lalit Kala* (Plastic Arts), *Sangeet Natak* (Dance, Drama and Music) and *Sahitya* (Literature).

ARCHITECT : Habib Rahaman



KEY MAP

LOCATION : The building is located at Mandi House circle along the intersection of Feroz Shah road & copernicus road in New Delhi.

Transport :

.

HISTORY

Rahman's early work in Delhi was marked by an over-emphasis on exposing structural concrete frames and an indiscriminate use of sun louvres influenced by Brasilia. It took him several years to realize that there was no clear scientific rationale for the way he was using louvres. The turning point came when Nehru rejected his first proposal for Rabindra Bhawan in 1959. His drawings featured extensive louvres. Barada Ukil, the Secretary of the Lal it Kala Akademi, encouraged a disheartened Rahman to try again. This forced him to evolve a fresh new vocabulary for fenestration and shading devices. The complex stands on a 1.45 hectare site amongst other art institutions forming the cultural centre of New Delhi. It consists of an administrative block, exhibition block and a theatre block. The administrative block, Y-shaped in plan, is a four-story structure to house offices of the three academies and a library. A 1.2m roof overhand protects building surfaces from the streaking effects of rain. Centre-hung windows have a double row of continuous sloping R.C.C. *chhajas*, blocking off strong sunlight yet permitting breezes to flow in. the administrative and exhibition block enclose a cluster of beautiful old trees shading the ruins of an ancient mosque.

Site Area : **12400 sq.m**

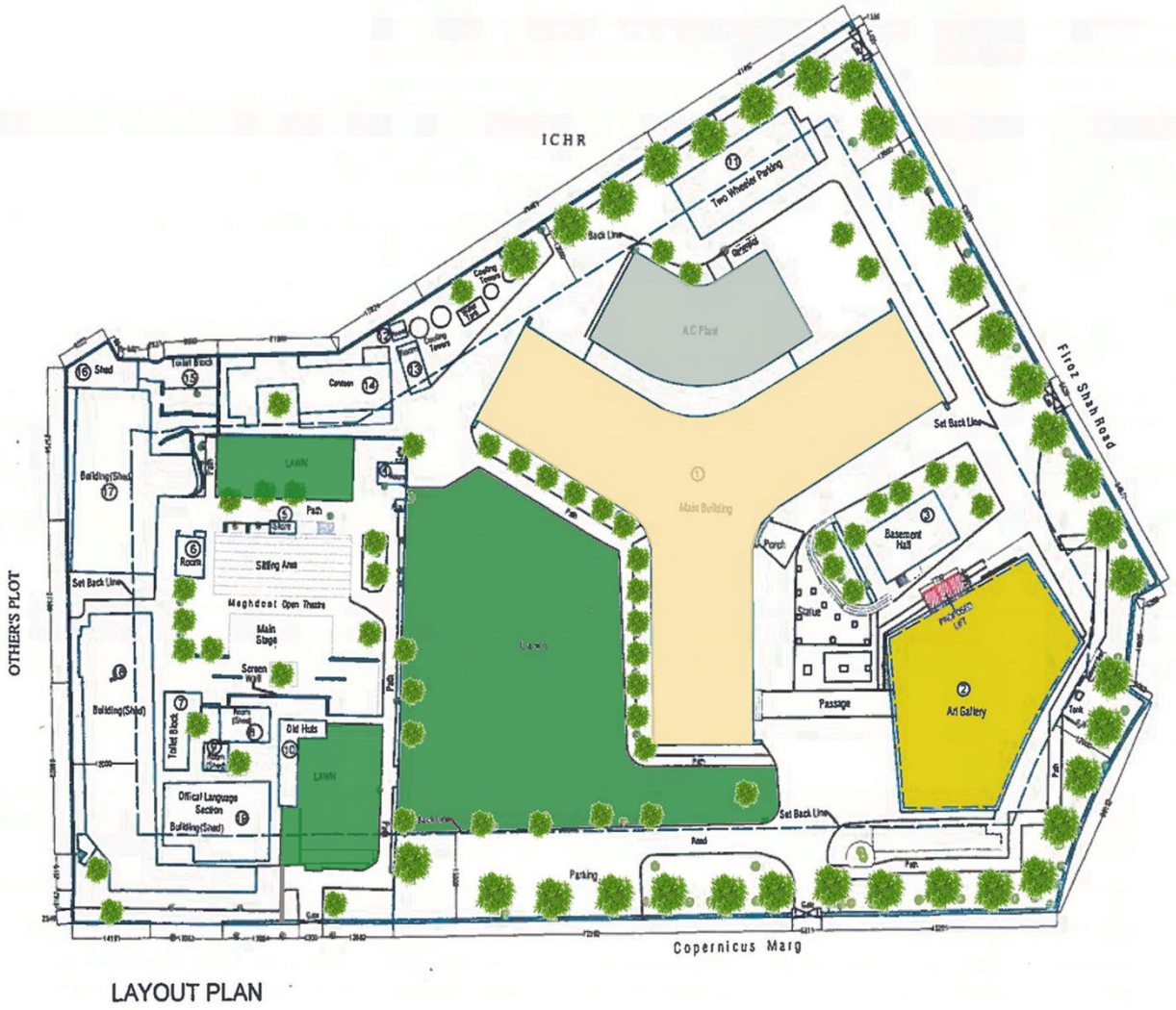
CONCEPT : Design of building inspired from simplicity of Rabindra Nath Tagore. The building design which was initially rehected by Pt. Jawahar lal Nehru to simple , elegent structure with Indian Elements to represent National academies**.**

"A building becomes architecture when it not only works effectively but moves the human soul."

Habib Rahman

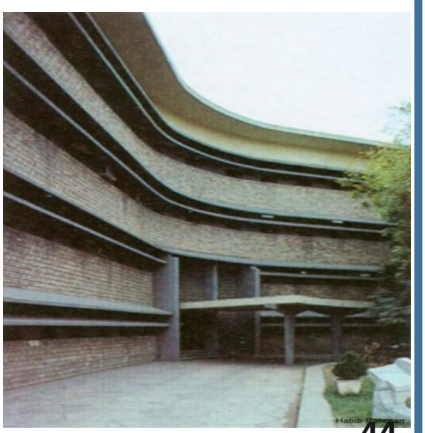
- Flat roofs, smooth facades, cubic shapes favoring right angles
- The colors used are white, gray, black, or beige - dull colors which show the lack of ornamentation
- Open floor plans and functional furniture
- Use of steel frames, flat slab, concrete as construction material.
- Absence of ornamentation
- Importance of function
- Radically simplified forms & Rationality and functionality.

SITE PLAN



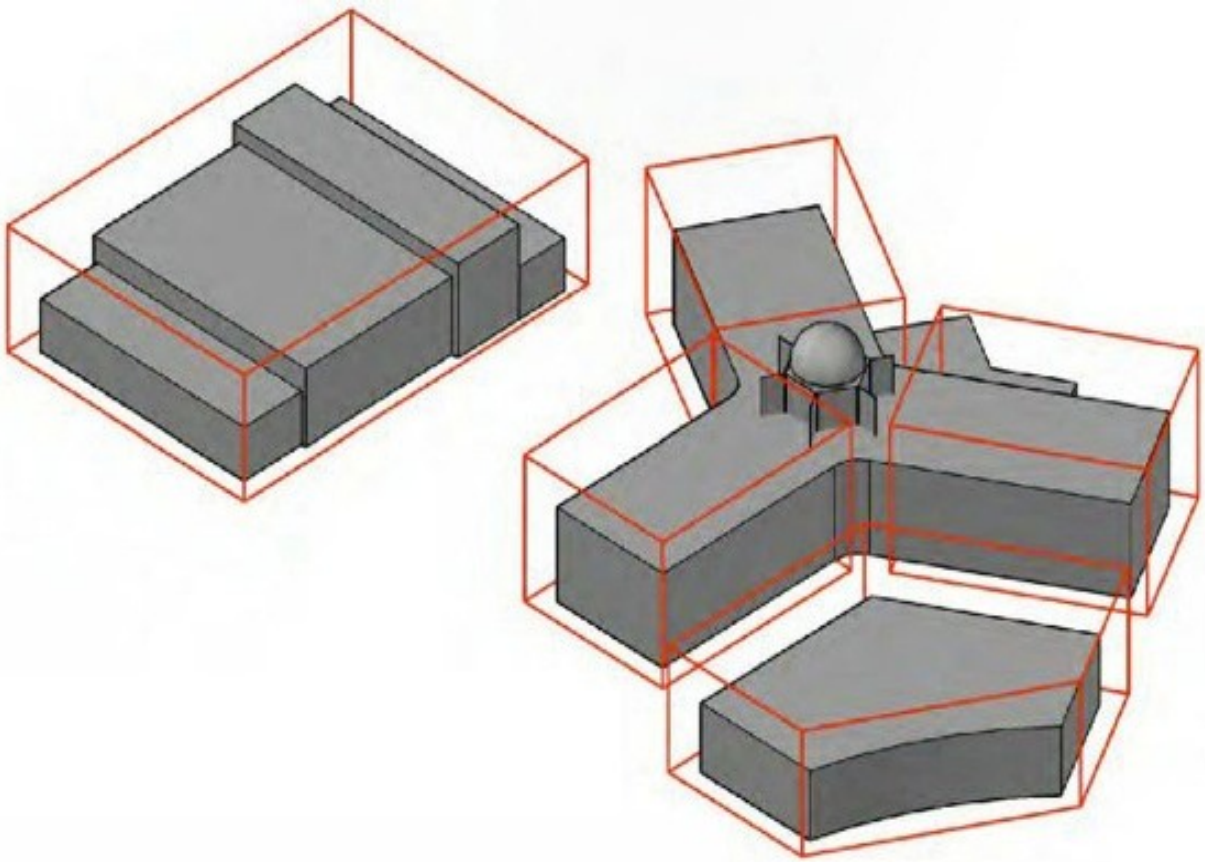
LAYOUT PLAN

The pentagonal exhibition block, one side of which follows the curve of an adjacent traffic island, has a basement and two upper floors on split levels. The galleries around a central service core have continuous exhibition spaces with provision for natural and artificial light. *Jalis* have been discreetly used in various parts of the building to reduce glare and provide subdued natural light.



Shape and positioning of the wings follows the shape of the site

Use **of pure geometry in overall form** of the building. Rahman created an interconnected structure free from Gropius's box shapes and the bauhaus factory aesthetics.



Form and Layout

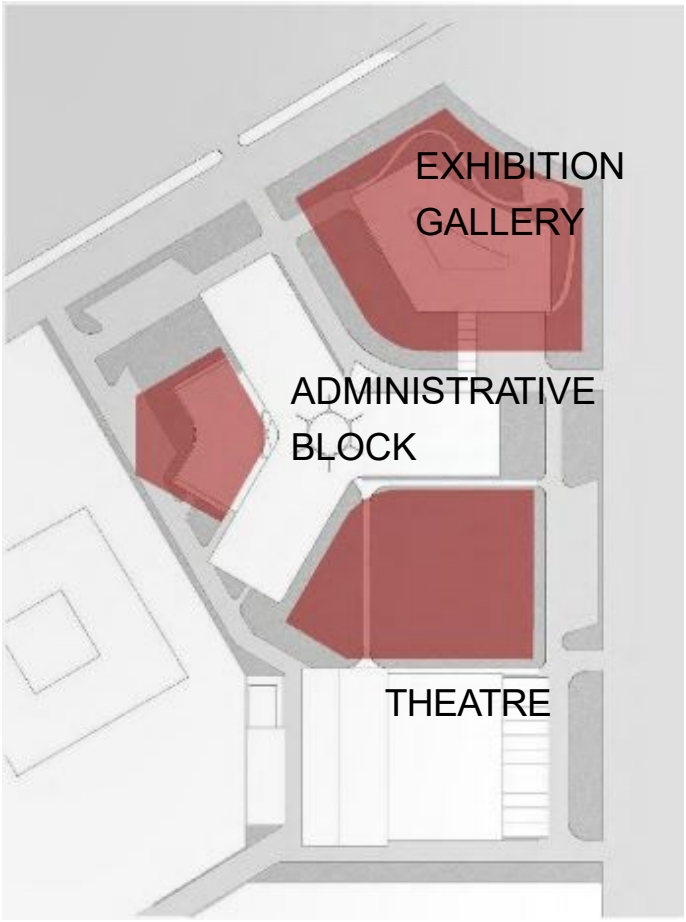
Rabindra Bhawan is designed with great harmony of district architectural style and aesthetics; all came together at one place .Each block of the bhawan is distinct in form, layout and articulation, most appropriate for its individual functions. Each block has its distinct persona and significance that does not overemphasis their identity on each other.

Each of these wings also has their one staircase for internal vertical circulation. The central service core is generating a very subtle curve in the façade of building giving it a slight fluid form , which is unusual from the Rehman's Bauhaus Aesthetics . Still the affection towards the pure for is evident as he did not try to shift towards much complex form. The form of each wing is basic rectangular box with hexagonal central junction topped with a hemisphere dome on the central shaft. Though Rehman has tried to achieve a bold statement by creating sprawling administrative block, still the scale of each individual functions and elements have been broken down to human scale . Facades of this block is made of numerous small windows closely placed heart to each other and two rows of continuous chajjas that emphasis the horizontality of the building giving the iilusion of never ending façade .

The AC Plant room, electrical substation, storage and weather maker room occupy the basement of the gallery, whereas rest of the two floors is used for exhibition purpose. One of the sticking elements of the gallery is the spiral staircase that is placed in the central part of the gallery. This free standing subtle element of vertical movement enhances the softer effect in the gallery which otherwise has a very solid form looking from exterior. Lighting for the exhibition is not only provided by artificial means but there is a continuous strip of small windows that runs at the top of each floors which lits the ceiling area of the gallery as well as the walls.

Hierarchy of Spaces

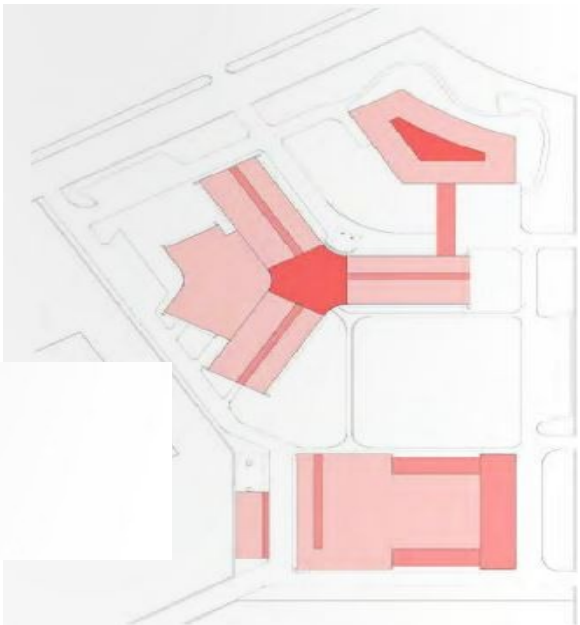
In this building, architect has tried to get the functional clarity by designing individual building forms. So all the functions of this building are defined by the individual forms, which are then connected through either by simple pathways within the landscape or by covered walkways in between two blocks; which acts like a transition space between different functions. The functional classification of these blocks is purely based on the notion of public, semi public and private spaces. The exhibition gallery and theatre which are meant for the public gathering are kept in separate block, whereas administration building that has that has semi public and private areas are kept in separate block. Based on this the strong hierarchal order is clearly seen in terms of organizations of the functions of the building. The proximity of the functions and each block are designed in such a way that it indicates their functional interrelationship with each other. The wing of Lalit Kala Academy is kept near to the exhibition block and the wing of Sangeet Natak Academy is kept near to the theatre block due to their interconnection with each other.



The building is divided into three major blocks- **administrative building, exhibition gallery and theatre**. The administrative block, which is the biggest of all, occupies prominent amount of space on the site. The architects vision was to make a bold statement and hold itself on the huge site- hence the monumental scale of the block.

The Y - shape is chosen very thoughtfully to cover the maximum area on the site. Not only that, the shape of the block creates different sizes of pockets where other two blocks are placed .

Basic layout of the building having service core in the centre and functional spaces around.



FUNCTIONAL SPACES

TRANSITIONAL SPACES

VERTICAL TRANSITIONAL SPACES

OFFICE SPACES

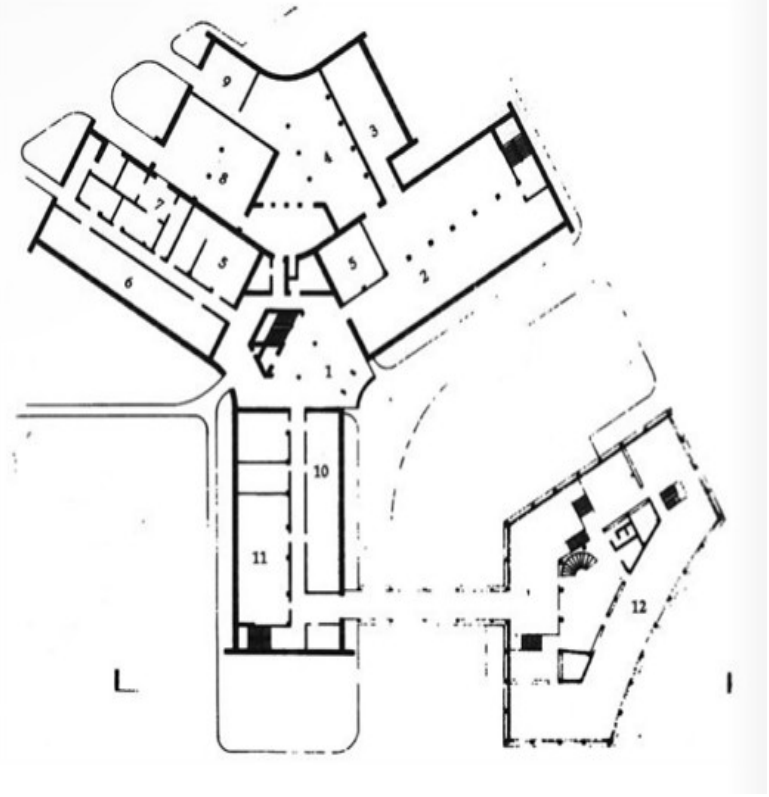
CORRIDORS

SERVICE CORE

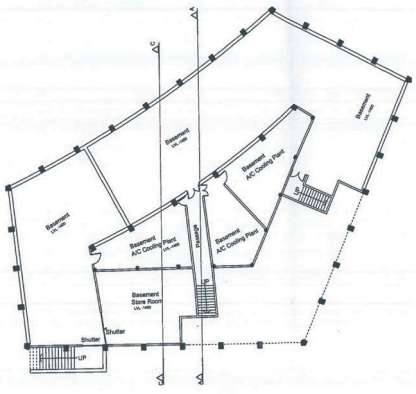
.

RABINDRA BHAVAN
Ground Floor Plan

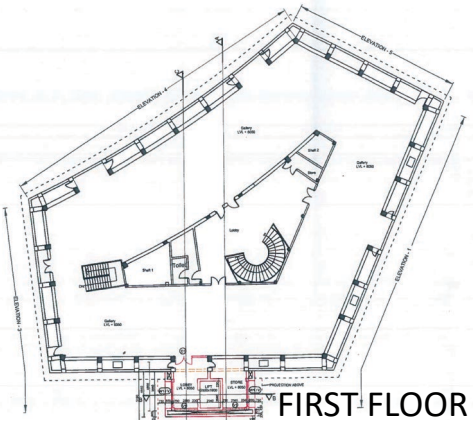
1. Foyer
2. Library
3. Scholar's room
4. Stacks & storage
5. Blower room
6. Museum for instruments & costumes
7. Services
8. Cycle shed
9. Receiving & despatch
10. Store
11. Photo & studio room
12. Gallery



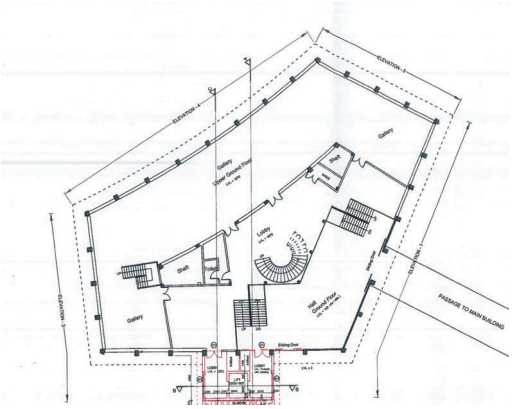
ART GALLERY PLAN ,ELEVATION AND VIEWS



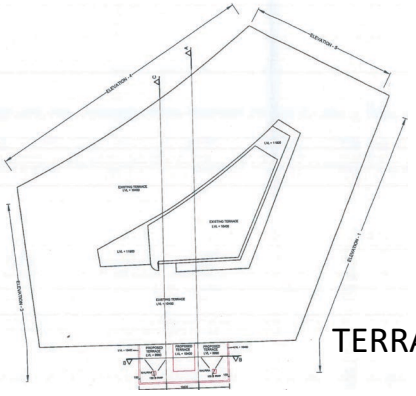
BASEMENT PLAN



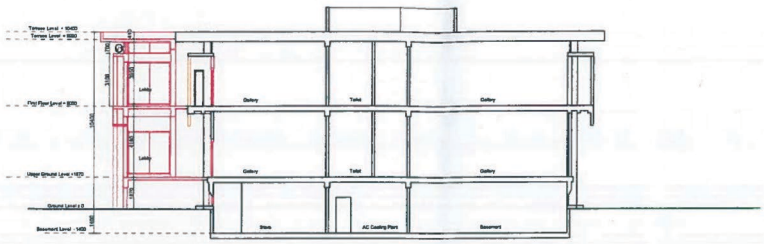
FIRST FLOOR



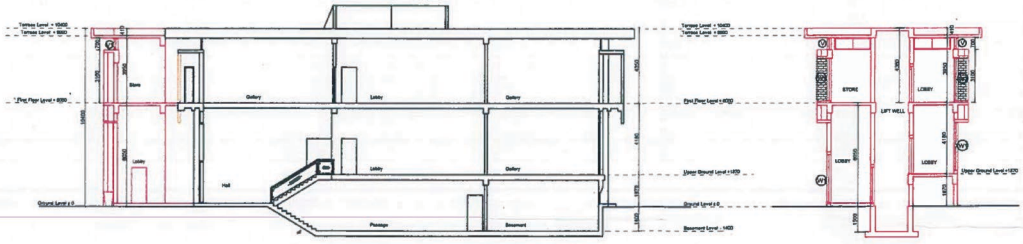
GROUND FLOOR



TERRACE FLOOR

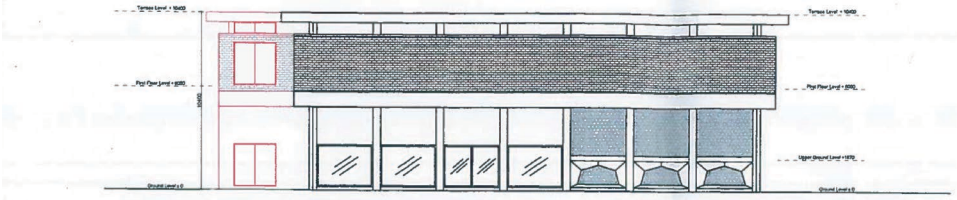


SECTION AT C-C

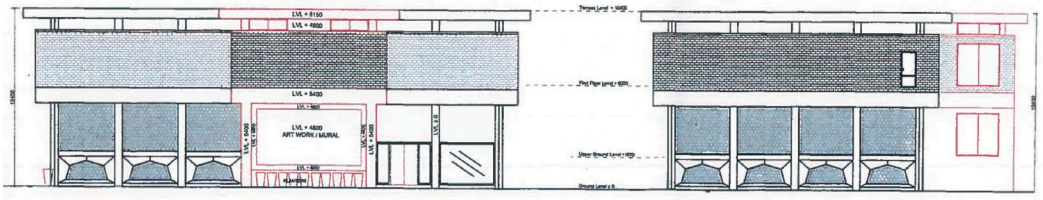


SECTION AT A-A

SECTION AT B-B



ELEVATION - 1



ELEVATION - 2

ELEVATION - 3

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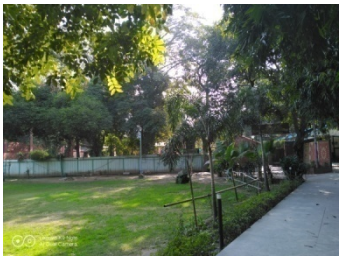
LANDSCAPE

Landscape is an important part of the building that has been incorporated at different places in different scale. Huge landscape has been provided between the theatre and administrative block which fits in one of the pocket created by 'Y' shape of the building. People use this pleasing landscape without bothering internal activities of the building. Another small garden is designed between administrative block and exhibition gallery that is used to consist a ruin of old mosque from Mughal time. Unfortunately that has been removed now so one cannot see how that old structure used to blending with the building around. This garden is also being used as an extended part of the exhibition gallery where permanent display of stone sculptures has been put up. Another garden is located in the entrance gate of the building extending till the back side of the pentagon gallery. Many sculptures are placed in that area and from that garden one can see the curve facade of the building responding to the traffic island. Separate gates of entry and parking have been provided for the building according the user with respect to their proximity to different building blocks.

The exhibition gallery has different façade treatment than the other block. Being the place for display of art more emphasis is given to the artificial means of the lighting and ventilation. But during the time of construction none of this block had the access to air conditioning system for entire building. Therefore provisions have been made to adapt the complete air-conditioning in the building. Still to complement the administrative block, exhibition gallery has been clad with the intricate jaali as filler wall between two columns that are purely used for the aesthetic purpose and not for the climatic reasons. Similarly the theatre block is also designed with full air-conditioning and ventilation system to suite the requirement of a close and quiet place without and distraction of outdoor activities.

MEGHDHOOT THEATRES

Theatre has its own separate entry from the Lytton road, therefore it does not interfere other functions by overcrowding the areas during the events of gathering. Another back entry is given from the Feroze Shah road to the site, which is designed to serve the entry for the other services areas like canteen, electrical sub stations and quarters for staff. While the administrative block and administrative building shares the common entry and exit gates,

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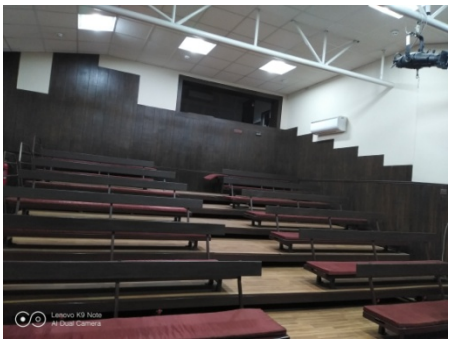
exhibition gallery has been provided with its own entrance plaza in front of the gallery that gives opportunity for small gatherings to take place.




Climatic Response

Climate friendly buildings are achieved on different levels of designing where at site level the orientation of building plays major role of creating a suitable environment in the building that response to the different conditions of weather. In case of Rabindra Bhawan orientation of the buildings block is more contexts driven than the climatic drive. But at the detail level, more importance is given to the design and placement of each element of weather protection.

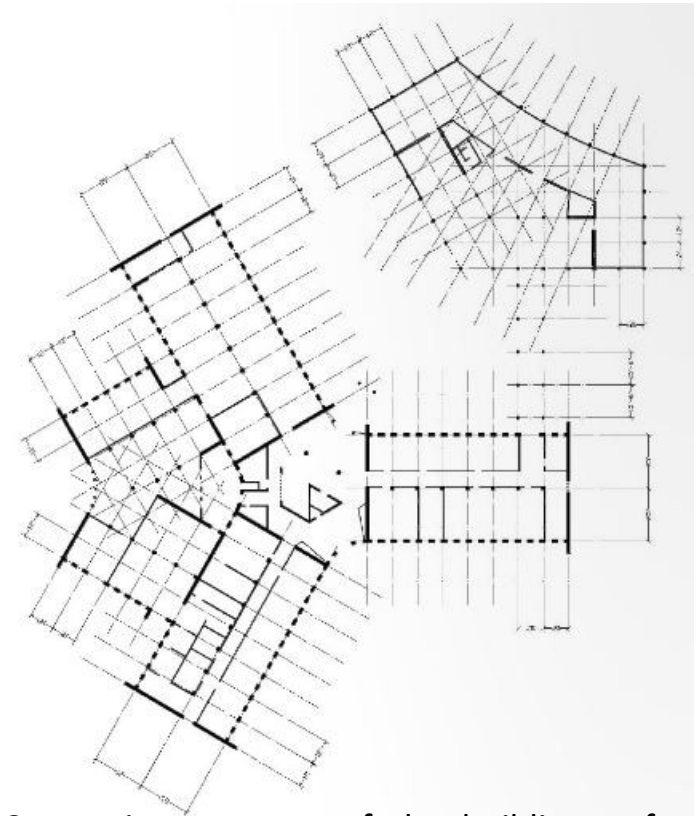
Structural System

Moved from his Bauhaus roots, Rahman has used composite structure for the construction of the administrative block. Here he he has used brick masonry load wearing walls with the combination of R.C.C. column, beam and slab. As similar to its form, the structural grid of the building is also very simple. It is divided into two grids of 12 ft module and 25 ft module where shorter span has two modules of 25 ft and longer span of the wings has 8 modules of 12 ft in case of Lalit kala and Sahitya Academy and 9 modules of 12 ft in case of Sangeet Natak Academy. The R.C.C. columns are placed in the central part of each wing at the position of intersection of two grids and load bearing walls are kept at the periphery of the entire block. The roof slab of the block is projecting out 6 ft beyond the walls on all sides. Future air – conditioning had been also provided in the structure of this block. The R.C.C. dome covers the hexagonal shape of the lift and staircase shaft,

which is placed on the supports of those walls of shaft and two columns of foyer.

The structural design of the exhibition gallery is also based on the module of 12 ft just like administrative block. But here the entire structure is made of R.C.C. framework with different filler walls at each level. The R.C.C. columns are placed at the periphery of the entire block and in the central part of gallery creating a service core. Administrative block has load bearing walls along the periphery of the structure, so one cannot see the existence of the concrete column from outside unless you visit the place from inside. But the existence of the columns is much evident in exhibition gallery as they are coming out from walls as ribs of the structure.

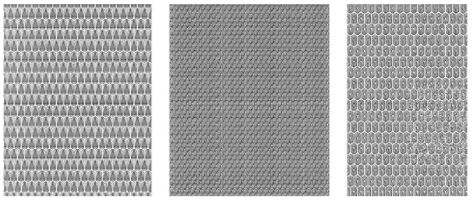
But in case of theatre block, structure is not as simple as these two other blocks. This theatre is designed with combination of many grids forming a complex layout of different dimensions. Here whenever the function changes the dimension of the grid also changes according the function. The columns of the sitting area are placed on the intervals of 10ft from center to center and columns of the stage and back stage areas are placed on the interval of 11 ft. Rahman designed structural layout of the theater purely based on the functional requirements as it would have been difficult to fit the diverse activities of performing art arts in one single module of the space . The false ceiling above the sitting area is suspended from the 8ft deep pre stress concrete beams which also supporting the flat slab above the same area. The foyer area of the theatre has a semi circular vaulted slab, which is also in the module of 11ft same as the stage area .



Composite structure of the building of brick load bearing walls and RCC framed structure

THE USE OF INDIAN ARCHITECTURAL ELEMENTS

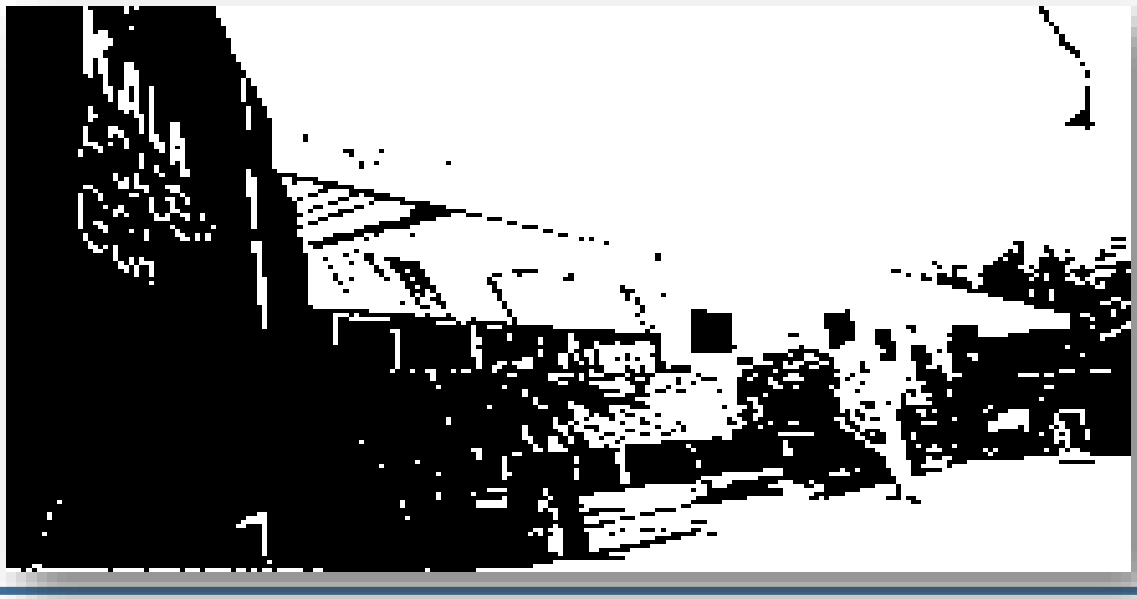
- Jalis
- Chajjas
- Dome



LITERATURE STUDY 1

[RESEARCH ONLINE STUDY]

KALA ACADEMY ,GOA



INTRODUCTION

Venue of international film festival of India. Established in 1969 prime institution for promotion of art and culture in 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.

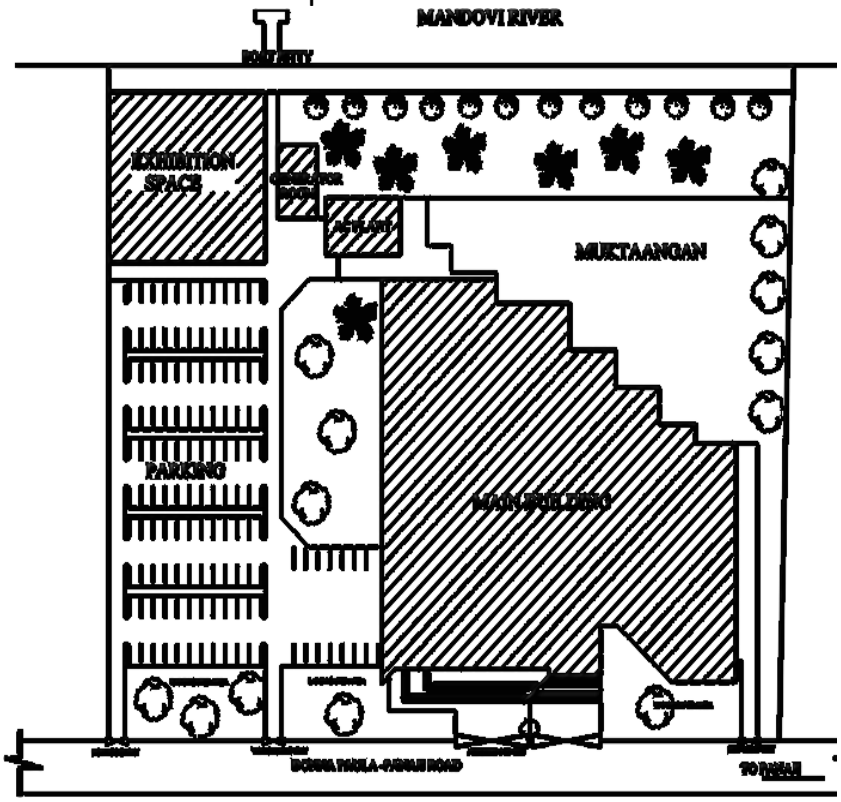
ARCHITECT : CHARLES CORREA

It plays the role of being an "apex body to develop music, dance, drama, fine art, folk art, literature, etc. and thereby promote (the) cultural unity of 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.

LAY OUT

- 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, garden and amphitheatre.
- Site is divided into main building service building, muktangan, parking area, the exhibition space.

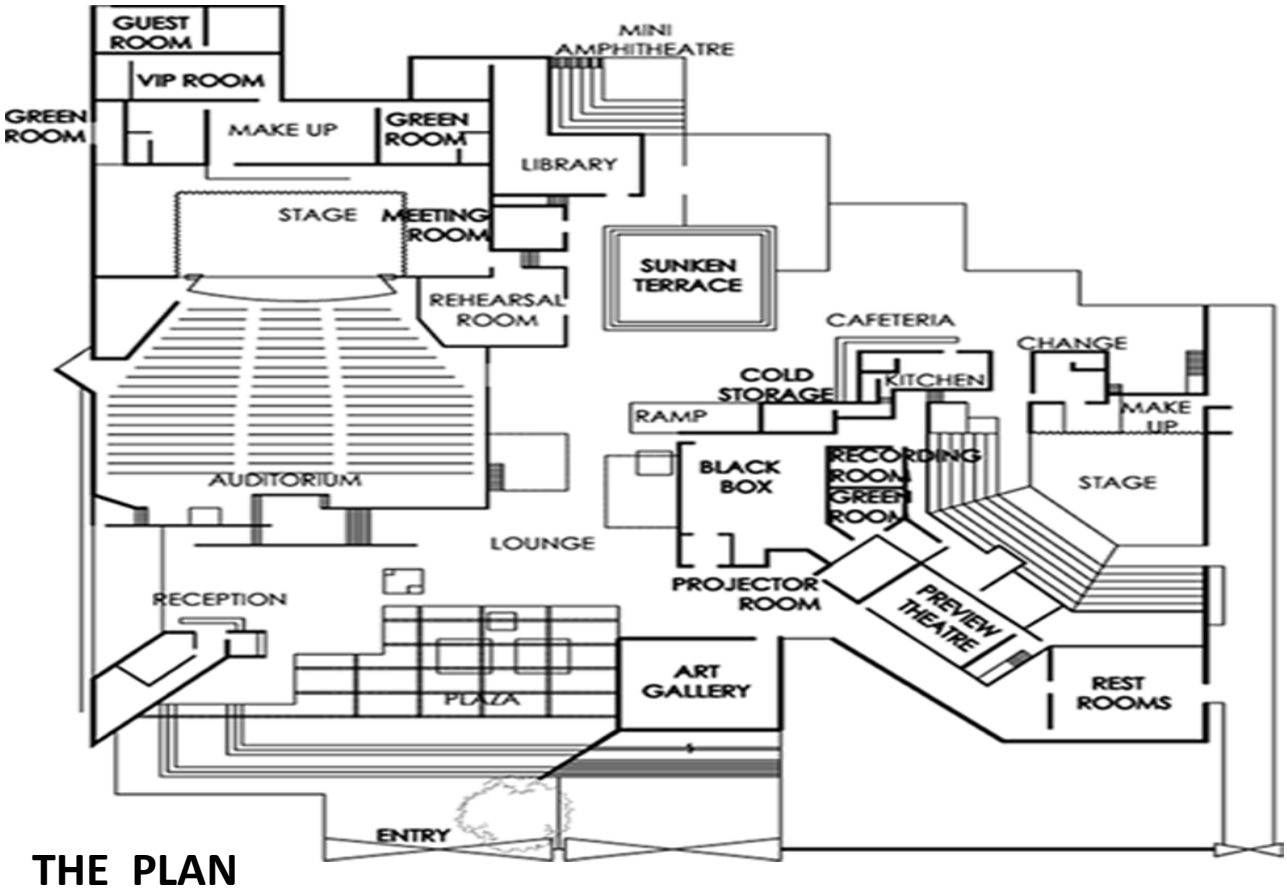


BUILDING STYLE AND CHARACTER

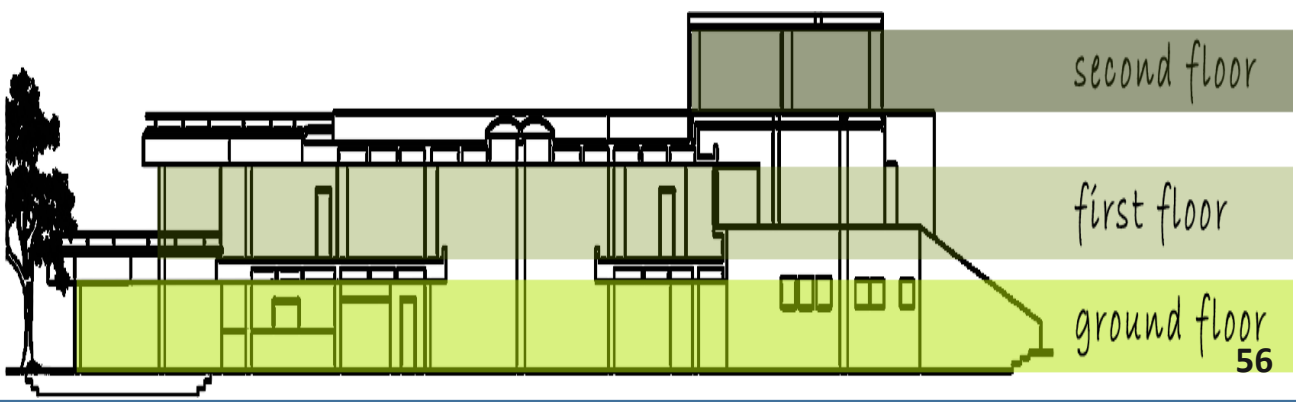
- Designed by ar. Charles correa.
- Importance to the process of moving through the spaces in a building.
- Built form has been kept low ranging from one to three floors.
- This is further enhanced by the use of parapet walls for upper floors, which emphasize horizontally.
- The 'pergola 'above the entrance acts as an extension to the foyer of the main auditorium and amphitheatre.
- Use of wafer slabs and parapet walls
- Extensive use of specially designed seating
- Interior walls are painted with pictures mostly depicting Konkanise culture and create illusion

BUILDING LEVEL ZONING

- Building is divided into three zones: **Public, Adminisration, Academic**
- Provided at different levels so as to avoid conflict between these zones.
- Ground floor includes facilities like auditorium, Preview Theater, amphitheatre, art gallery, and canteen etc, where public entry is invited
- First and second floors include academic and administration facilities.
- 3 groups of people using the building: **Staff, students, audience**
- Circulation linked to the zoning and has been segregated by separating them through levels -ground floor for audience functions and first and second floor for staff and students with a necessary degree of inter linking.



THE PLAN

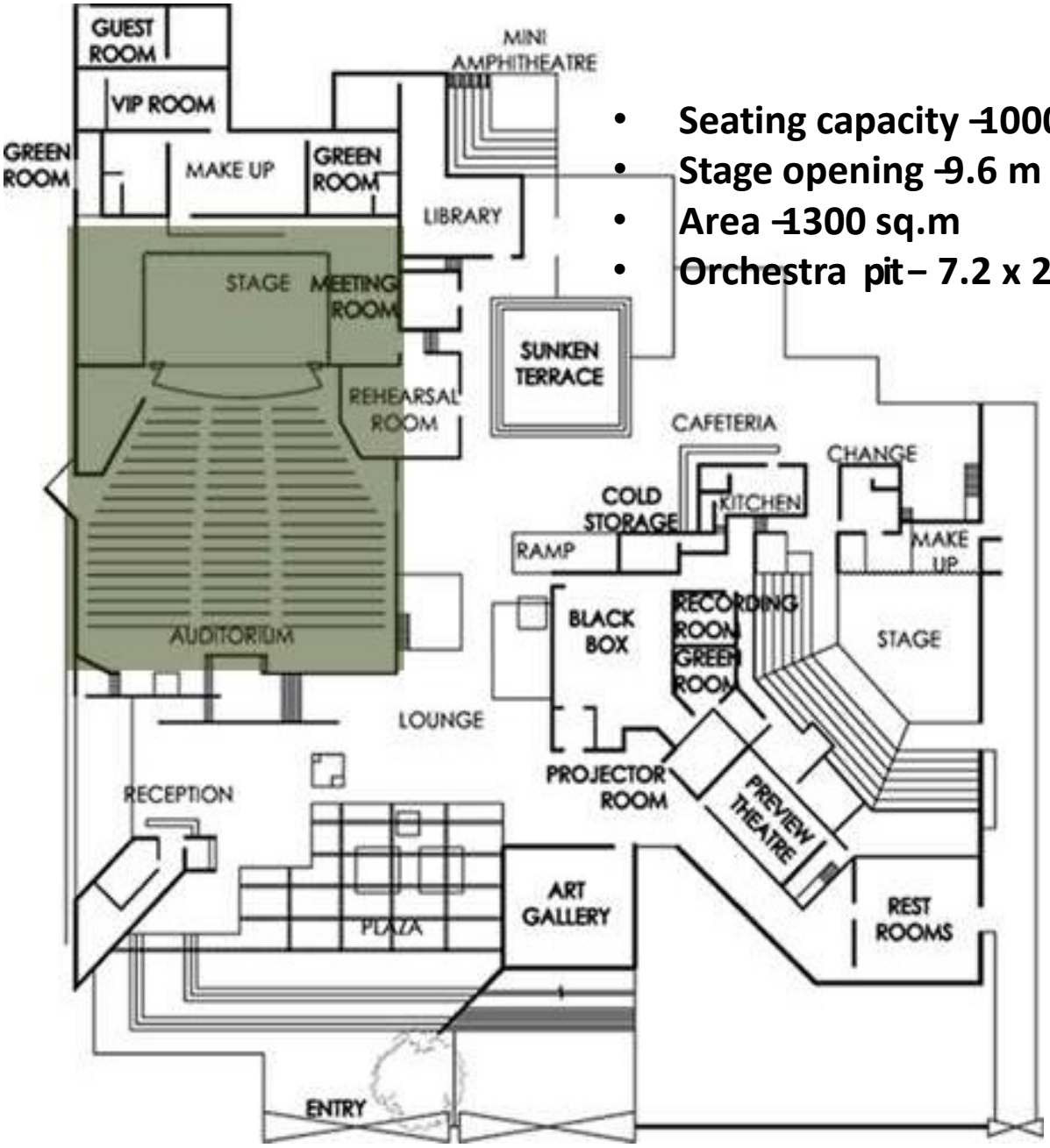


FACILITIES AT KALA ACADEMY

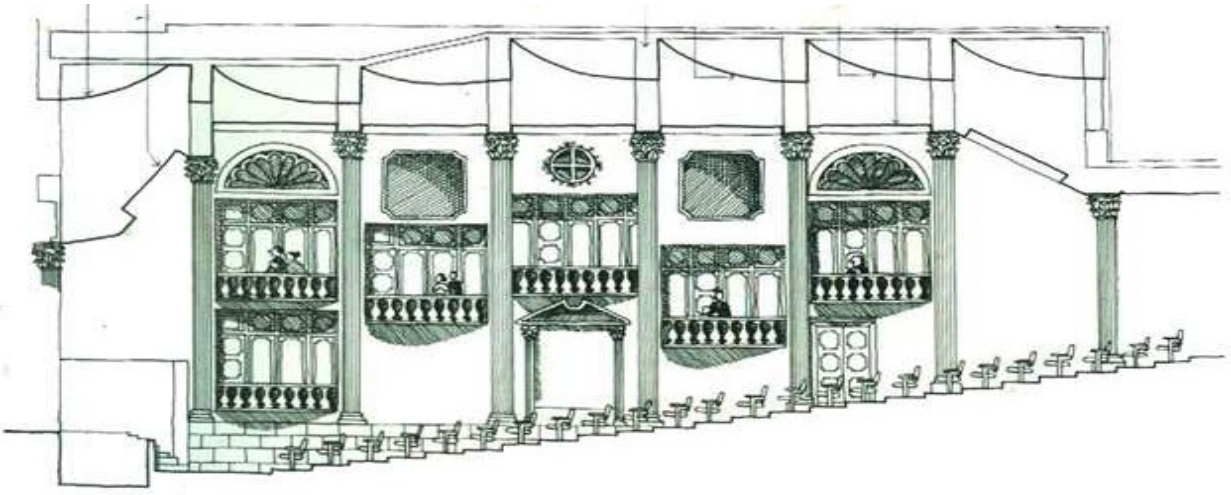
- 1) D.M Kalamandir
- 2) OAT
- 3) Mini OAT
- 4) Black Box
- 5) Rehearsal Room
- 6) Art Gallery
- 7) Meeting Room
- 8) Guest Room
- 9) Preview Theatre
- 10) Cafeteria
- 11) Library
- 12) Teaching Studio
- 13) Green Room
- 14) Kitchen
- 15) Administration
- 16) Reception
- 17) Lounge

D.M KALA MANDIR (A. C AUDITORIUM)

- Variety of acoustical conditions ranging from speech, plays to sitar recitals and orchestral arrangements
- Changes made by manipulating absorbent materials placed within inner compartments hidden from view above the ceiling.
- Walls of the auditorium are painted illusions of an old goan theatre
- Behind the figures in the boxes real curtains may be pulled to reduce reverberation time in space.
- Stage is 80cm high from the first row.
- Raking height varies from 10–20 cm



- **Seating capacity – 1000**
- **Stage opening – 9.6 m**
- **Area – 1300 sq.m**
- **Orchestra pit – 7.2 x 2.1 m**



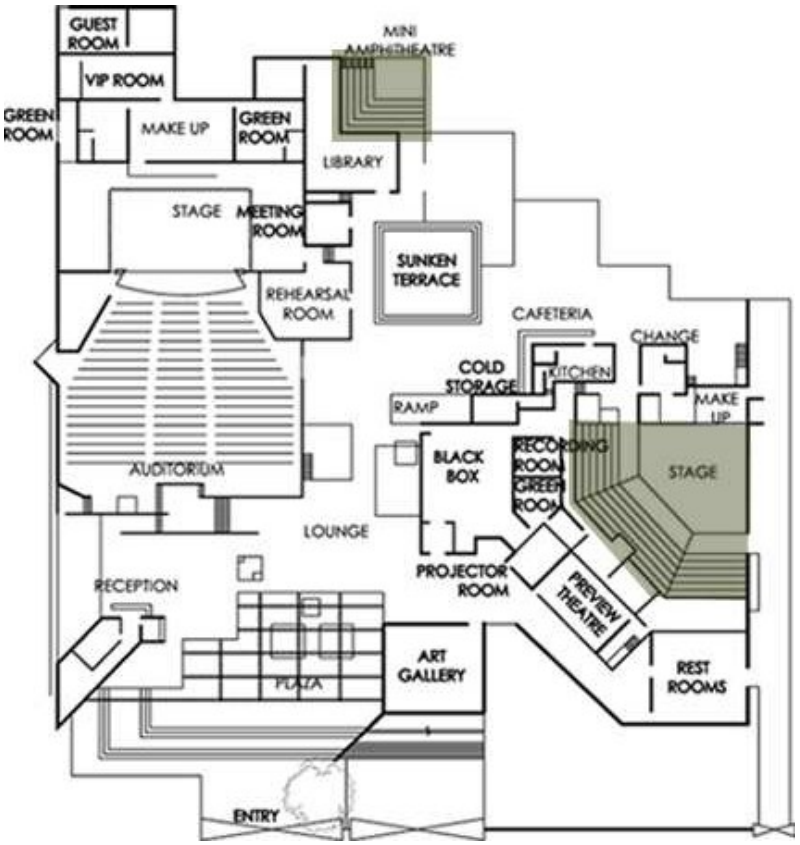
MINI OPEN AIR THEATRE:

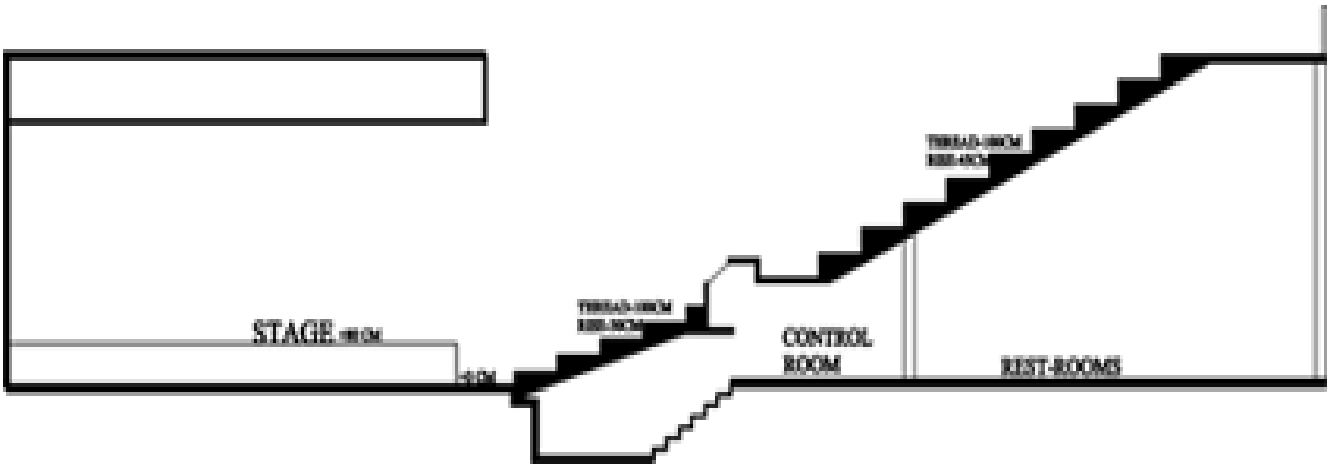
- 300 people.
- Used as an outdoor classroom and meeting space
- Oat has a tread of 85cm and rise of 45 cm. teep risers give it excellent sightlines.
- farthest seat is 6m away and no amplication required.
- Two aisles run along either end. The width is 120cm and
- The steps have 15cm risers and 28 cm treads.
- The stage is square is shape and has an area of 7.5 x 7.5 m

OPEN AIR AMPHITHEATRE

- Seating capacity (no chair) – 2000
- Seating capacity (chair) - 1312
- Proscenium opening - 15 m
- Depth from curtain line – 12m
- Amphitheatre is of double herringbone shape.
- Main entry from road main lobby and the restaurant area.
- Stage is raised at 75cm above the ground floor level (eye level of the first row)
- Lower Seat rise 30 cm and tread of 100 cm
- Higher Seat rise of 45 cm
- Acoustics are good as the seats block out noise from the road side and the stage blocks out noise from the river side

OPEN AIR AMPHITHEATRE





BLACK BOX

- Seating capacity -200.
- Area -175 sq.m
- Used for experimental productions, music concerts, meetings and amateur performances.
- Also used as a recording studio.
- Control room and a green room provided.
- Black box lobby is also provided.

BLACK BOX

ADMINISTRATION

Administrative area is on the first floor. The area divided into closed and open cabine total area Comes to around 500 sq.m.

PREVIEW THEATRE

- Capacity of 24.
- Used during '**IFFI**' for
- special screening.
- Has got a jury room and projector room arrached
- Particle board has been used for acoustical effect.

LIBRARY - 135 SQ.M

Library is in proximity with mini oat. Books are raked in glass shelves .

CAFETERIA - 100 CAPACITY

Square table are provided each with 4 seats 3 sides open in to the outdoor landscape . It is accessible from all theatre meeting room 45 sq.m area of the room 7.30 x 6.15 sq.mts. Room has one big table and six chairs

ART GALLERY

- Running wall space -30 x 1.50 mts approx
- Carpet area of gallery -90sq.mts approx.
- When exhibitions are not happening painting of children are displayed.
- The exhibits are displayed on the wall on four sides.
- Lighting features are very normal no facility to hold a good exhibition. A track is provided on all the walls, where the hook is given for hanging the paintings
- Paintings are hanged on the hook, it may not look nice in the context of exhibition but its looks simple as the building context
- Cove lightings are used in gallery of the light and can be adjusted
- Since the intensity of the light is less, the light is spread on the wall.

SERVICES

- The service buildings (AC plant and generator room) are provided on the western corner of the site no way disrupting the normal functioning of the building.
- Two separate service entries have been provided. One to the generator room and the other on the eastern corner of the site.
- The eastern entry caters to the need of the amphitheatre and the canteen.
- A loading deck has also been provided here
- The septic tank is provided underneath the garden.

PARKING FACILITIES

- Parking facilities is provided on the south−eastern side.
- 250 public parking are provided.
- Special VIP and staff parking provided.

Landscape:

- Beautiful lawns form the main part of the site. Trees are provided aptly at the front side of the building.
- Specially designed benches and lamp posts line the path Along the river side.

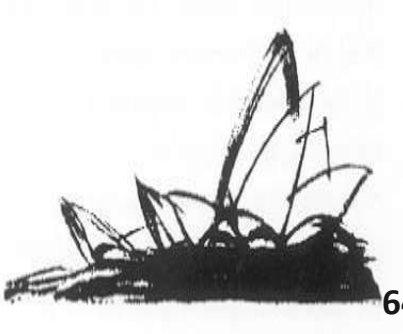
Conclusion:

- The layout and the building zoning provided are Excellent has brought in a different overall treatment.
- Good acoustical treatment
- The flow of spaces has resulted in a good built–open relationship.
- Good use of site features has successfully made the public spaces interesting by use of sculptures, paintings, seatings etc.
- The cafeteria is the most active space with good view to the river.
- Vehicular and pedestrian ways properly defined.
- Service blocks are separated
- Security measures provided are minimum.
- Signage provided is minimum.
- The trees have to some extent blocked the view to the river
- Public spaces too large.

LITERATURE STUDY 2

[ONLINE RESEARCH]

SYDNEY OPERA HOUSE



INTRODUCTION

- The Sydney Opera House, designed by **Danish architect, Jørn Utzon (1918-2008)**, is a vibrant complex of performance spaces enclosed by one of the world's most iconic structures. Design work commenced in 1957 and the building was completed in 1973.
- The facility features a **modern expressionist design**, with a series of large precast concrete "shells", each composed of sections of a sphere of 75.2 metres (246 ft 8.6in) radius, forming the roofs of the structure, set on a monumental podium. The building covers 1.8 hectares (4.4 acres) of land and is 183 m (600 ft) long and 120 (394 ft) wide at its widest point. It is supported on 588 concrete piers sunk as much as 25 m (82 ft) below sea level.
- The interior of the Concert Hall was designed by Australian architect **Peter Hallafter**.Utzon returned to
  Denmark in 1966 following a dispute with the Government over a number of issues, including cost over-runs.
- The Acoustician for the Concert Hall was **Vilhelm Lassen Jordan**.

IMPORTANCE

- It is a community centrepiece that brings together Australians from all geographic, cultural and socio-economic backgrounds.
- Australia's premier tourist destination and most recognised symbol, Sydney Opera House attracts around 7.4 million visitors every year. One of the world's busiest performing arts centres, 1.25 million people attended the 1,667 performances in 2008/09 and about 320,000 took part in guided tours
- The Sydney Opera House was built due to the demand for a bigger theatrical space in Sydney.
- In an average year, the Sydney Opera House presents theatre, musicals, opera, contemporary dance, ballet, every form of music from symphony concerts as well as exhibitions and films.
- It averages around 3,000 events each year with audiences totaling up to two million.
- The Opera House operates 24 hours a day, every day of the year except Christmas Day and Good Friday.

DESCRIPTION

- Sydney Opera House promotes and supports many of Australia's most significant performing arts companies. A diverse program of events is performed under the Sydney *Opera House Presents* brand
- There are four resident companies:
    1. Opera Australia
    2. Sydney symphoney
    3. The Australia Ballet
    4. Sydney Theatre Compa
    5. Ve theatres in the Opera house

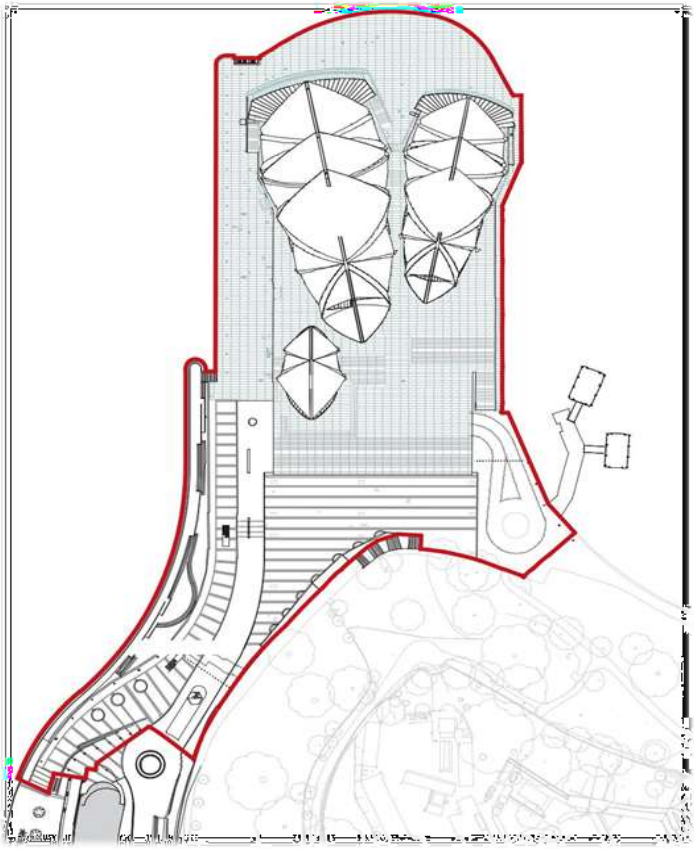
There are five theatres in the Opera house

1. Opera theatre (with 1547 seats)
2. Drama theatre (with 544 seats)
3. Playhouse (with 398 seats)
4. Studio theatre (with 364 seats)
5. The Concert hall (with 2679 seats)

Building function: Performing arts center

THE CONCERT HALL:

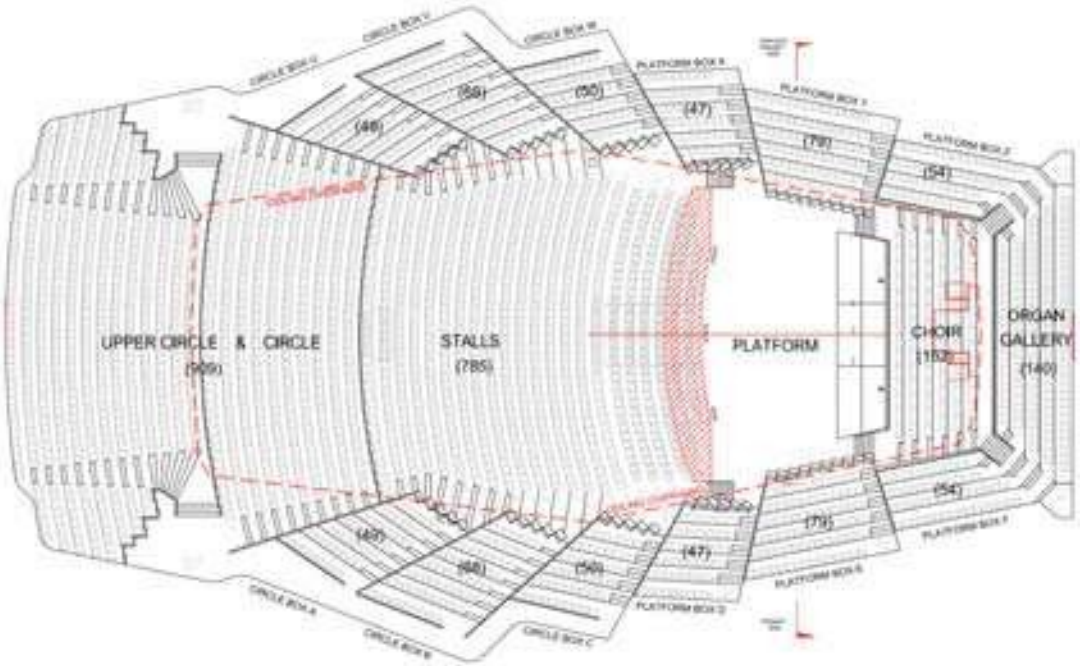
- The largest performance venue in the complex, the Concert Hall seats up to 2,679 in-the-round.
- The Concert Hall is not a conventional 'shoe box' shape. The configuration and mass of the walls and ceiling are light weight, and the ceiling is higher than that of comparable venues.
- The Concert Hall is located inside the largest roof sail. The traditionally rectangular requirements of a theatre must be configured into a triangular space. The ceiling void is a seriously confined space, filled to capacity with services, stage machinery and technical equipments.



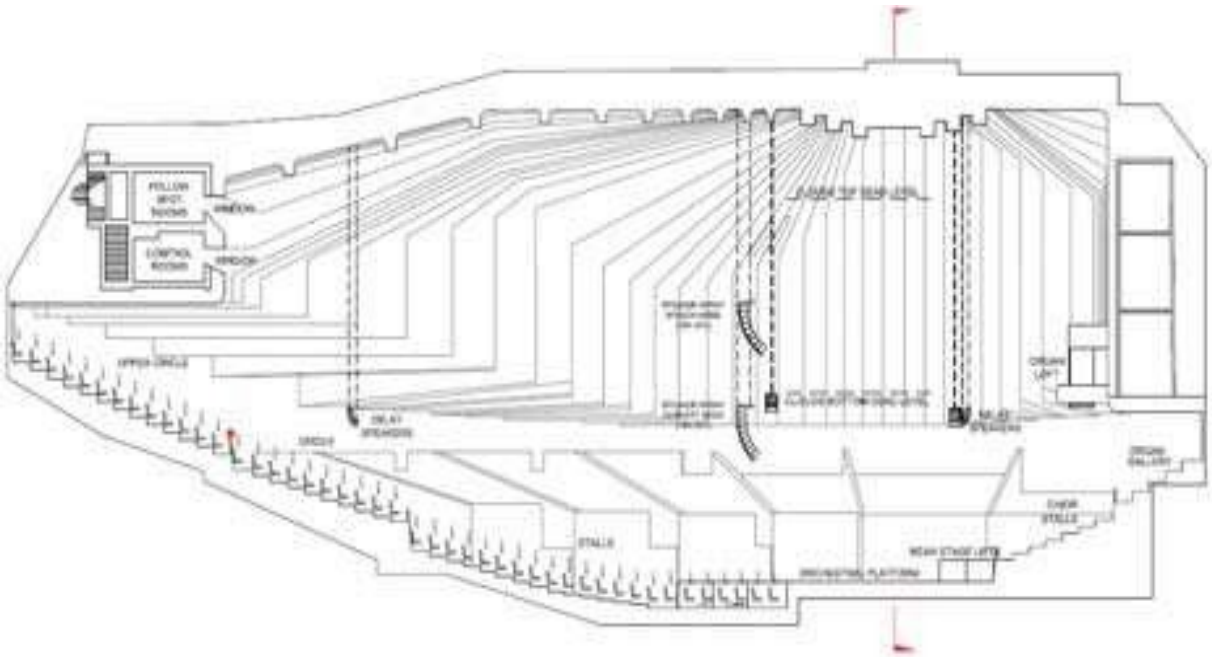
- ✓ In an average year, the Sydney Opera House presents theatre, musicals, opera, contemporary dance, ballet, every form of music from symphony concerts as well as exhibition and films.
- ✓ It averages around 3,000 events each year with audiences totaling up to two million.

THE PLANNING:

- ❖ The stage platform measures approximately 17m wide at the setting line by 11.5m deep at the centre line. An optional stage extension, made up of five hydraulic scissor lifts, adds approximately 1.5m depth at the centre line. Upstage is fitted with six hydraulic scissor lifts, which may be used to raise the brass and percussion sections.
- ❖ There is an open platform, with the height-adjustable canopy of reflectors. Lighting is concealed within the ceiling and is set up for standard orchestral lighting, with some scope for colour washes and specials.
- ❖ The **seatings** frames are made of **Australian white birch veneer** and **the seats are upholstered in wool.**



Concert Hall Auditorium (plan view)



Concert Hall Auditorium (North- South section): the ceiling crown sits 25m above the stage platform

THE FLOORING:

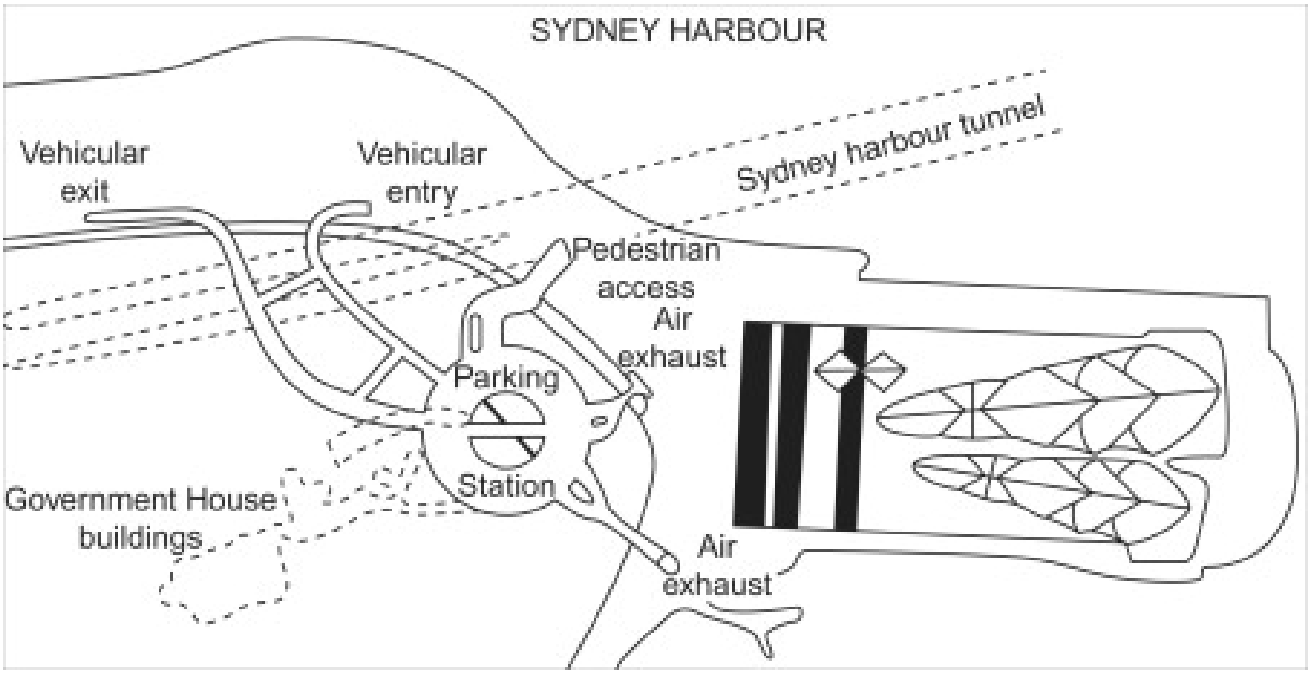
- Throughout the interiors, **prefabricated panels** of **laminated Australian Brush Box** were used for flooring, stair treads and risers and wall panels.
- An extremely hard and dense timber, Brush Box was chosen for its warm, rich colour and grain, acoustic performance and high durability.
- Made up of 38mm wide kiln dried strips of timber glue laminated together, each panel used in the Opera House was around 1200mm wide and varied in length depending on application.
- The flooring and tread panels were 51mm thick and fastened to timber joists. The wall panels were 19mm thick and fastened to steel channels. Smaller panels of laminated Brush Box were also used for balustrades, parapets, and handrails.

THE CEILING:

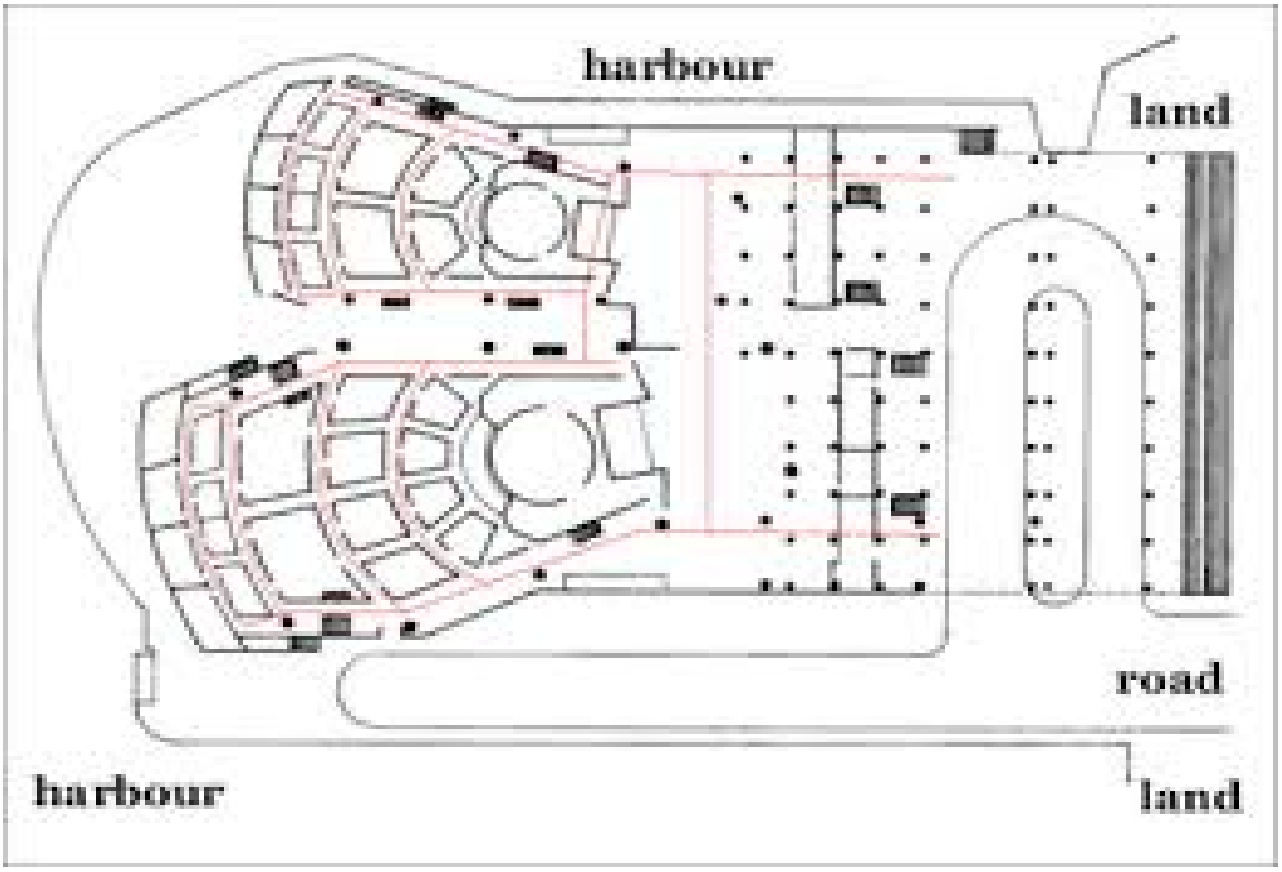
- Both ceilings are constructed of **Australian White Birch plywood panels** backed with **acoustic plasterboard** and suspended from **steel purlins**. The purlins in turn are suspended from arched steel trusses in between the shells and the ceiling.
- With the trusses picking up all the loads of the ceiling and distributing them to the side of the shells, the ceiling itself no longer has any structural elements like the plywood beams in Utzon's scheme.
- The ceiling crown is unusually high, at approximately 25m above the stage, which creates a massive chamber above the platform.
- Made up of plywood, the crown dominates the ceiling of the Concert Hall over the stage. Radiating out from this is a series of ribs that cascade down to their junction with the walls

THE SOUND SYSTEM:

- The venue is fitted with a **stereo line array system** by **D&B Audio technik.**This system replaced a central speaker cluster in 2009 and has substantially improved the quality of amplified sound and the visual aesthetic of the hall.
- The sound system installation was not only designed to improve amplified performance . . It was also designed to speed the **turnaround time between productions**. The installation allows the sound system to be flown into 6 preprogrammed configurations without the need for any labour to rig the system. . In addition, a large excavation in the rear stalls area has allowed the sound team to position a console, processing equipment.



Its **significance** is based on its unparalleled design and construction; its exceptional engineering achievements and technological innovation and its position as a world-famous icon of architecture.



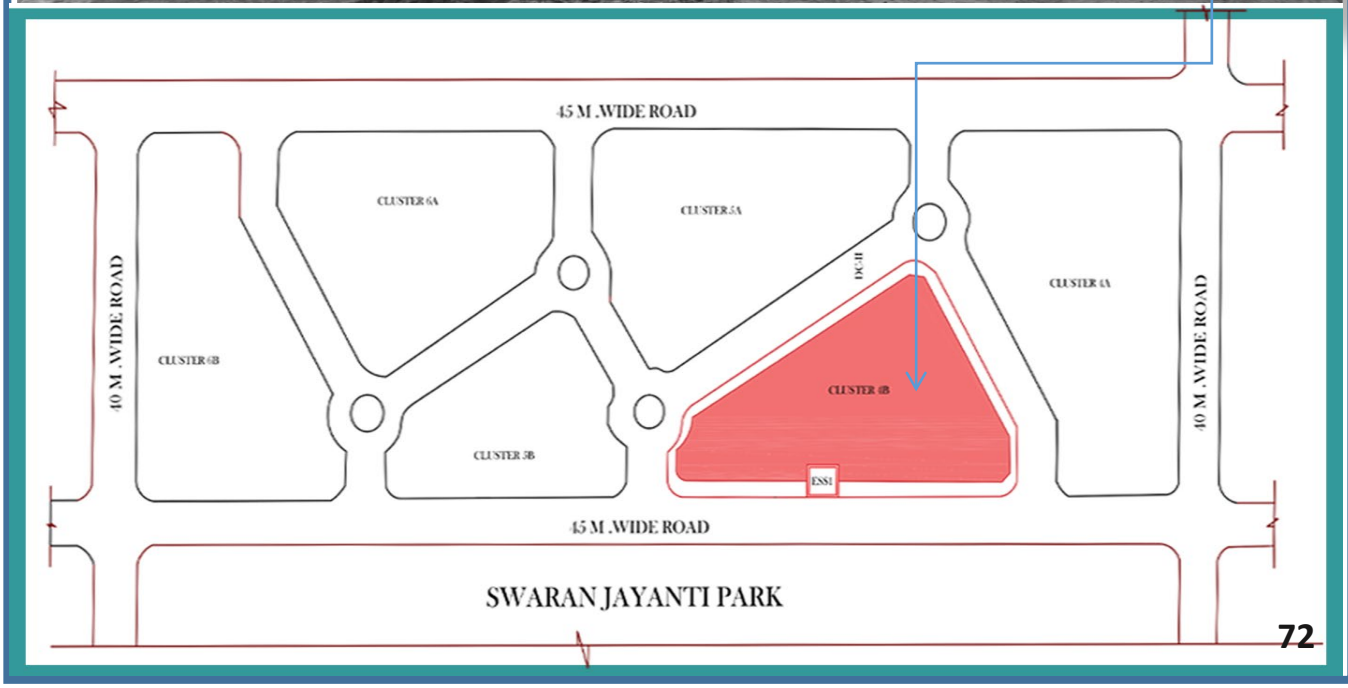
It is a national icon that has become an internationally-recognised symbol of modern Australia and of **Sydney**, Australia's largest city.

COMPARATIVE ANALYSIS

S.NO	CASE STUDY PARAMETERS	LITERATURE STUDY (SYDNEY OPERA HOUSE)	LITERATURE STUDY (KALA ACADMEY,GOA)	CASE STUDY -1 (TRIVENI KALA SANGAM)	CASE STUDY -2 (RAVINDRA BHAWAN)
1	LOCATION	BENNELONG POINT, SYDNEY ,AUSTRALIA	CAMPAL,PANAJI,GOA	205,TANSEN MARG, MANDI HOUSE	30,FIROZESHAH ROAD,MANDI HOUSE
2	AREA	4.4 ACRES	6.3 ACRES	2 .44 ACRES	3 ACRES
3	TYPES OF EVENTS	MULTI-VENUE PERFORMING ART CENTRE	INTERNAYIONAL FILM FESTIVAL,INDIA;EVENTS, WORKSHOPS & SEMINARS	ART EXHIBITON, PHOTOGRAPHY,MUSIC AND DANCE PERFORMANCE	DANCE,THEATRE ,MUSICAL PERFORMANCES.
4	TYPES OF SPACES	A PROCENIUM THEATRE, DRAMA THEATRE,PLAYHOUSE CONCERT HALL & STUDIOS	ART GALLERY,PREVIEW THETARE,TEACHING STUDIOS &REHERSAL ROOMS	OAT,SCULPTURE COURT, AUDITORIUM,TEACHING &LEARNING, INDIAN MUSIC AND DANCE	LALIT KALA,SAHITYA KALA SANGEET NATAK AKADEMI MEGHDHOOT THEATRES
5	DESIGN CONCEPT	THE DESIGN OF THE SYDNEY OPERA HOUSE WAS INSPIRED BY NATURE, ITS FORMS, FUNCTIONS AND COLOURS. UTZON WAS INFLUENCED IN HIS DESIGNS BY BIRD WINGS, THE SHAPE AND FORM OF CLOUDS, SHELLS .	IS A SYMBOL OF MODERN HERITAGE IN GOA. ITS HUMAN-FRIENDLY SCALE, BUILDING PROPORTIONS, AND A NON-RESTRICTIVE DESIGN APPROACH TO ACCOMMODATE USERS FROM DIFFERENT WALKS OF LIFE IS TRULY AN ARCHITECTURE FOR HUMANS.	FLEXIBILITY IN SPACES FOR PERFOMANCE OF DIFFERENT ART FORMS AS LARGE NUMBER OF EVENTS HAD TO BE ORGANIZED IN A SMALL PLOT AND HARMONY BETWEEN INTERIORS AND EXTERIORS.	IT IS RENOWNED STRUCTURE THAT IS WIDELY REGARDED AS ONE OF THE FINEST EXAMPLES OF INDIAN MODERNISM. THE BHAVAN SERVES AS A MEMORIAL MUSEUM AND A MAJOR RESEARCH CENTRE FOR TAGORE STUDIES.
6	DESIGN FEATURE	THE FACILITY FEATURES A MODERN EXPRESSIONIST DESIGN, WITH A SERIES OF LARGE PRECAST CONCRETE SHELLS", EACH COMPOSED OF SECTIONS OF A SPHERE OF 75.2 METRES (246 FT 8.6 IN) RADIUS, FORMING THE ROOFS OF THE STRUCTURE, SET ON A MONUMENTAL PODIUM.	A MODERNIST PLAN -FORM OF POST AND BEAM CONSTRUCTION ON AN ORTHOGONAL GRID OFFERED THE ARCHITECT NECESSARY VARIATION IN DIMENSIONS DEMANDED BY A PROGRAMME .	USE OF JALLI PANELS ON THE EXTERIORS TO COPE WITH DELHI'S HOT WEATHER.	THE DESIGN SOLUTION AS IT EMERGED CONSISTS OF THE ADMINISTRATIVE BLOCK WITH THREE WINGS OF MORE OR LESS EQUAL LENGTH AT AN ANGLE OF 120° TO EACH OTHER, AND A PENTAGON SHAPED EXHIBITION BLOCK.
7	SIGNIFICANCE OF ART & CULTURE (INFERENCES)	VIBRANT ARTS AND CULTURE IN SYDNEY.MORE THAN 1,600 PERFORMANCES ARE HELD EACH YEAR AT THE OPERA HOUSE, INCLUDING BALLET AND CONTEMPORARY DANCE, OPERA, CLASSICAL MUSIC, STAGE PLAYS AND MORE. THE SYDNEY OPERA HOUSE ALREADY IS ONE OF THE WORLD'S MOST FAMOUS BUILDINGS AND A BUSY PERFORMING ARTS CENTRE THAT WELCOMES ALMOST 11 MILLION VISITORS A YEAR	KALA ACADEMY PLAYS A PIVOTAL ROLE IN FORMING A NICHE IN THE CULTURAL AND PERFORMING STUDIES OF GOA. KALA ACADEMY SINCE ITS INCEPTION AS AN INSTITUTION OF ACADEMICS HAS BEEN A CREATIVE AND LIBERAL SPACE FOR INNOVATION	TRIVENI KALA SANGAM TEACHES CLASSICAL INDIAN DANCE, CLASSICAL INDIAN MUSIC (VOCAL & INSTRUMENTAL), CONTEMPORARY PAINTING, SCULPTURE, PHOTOGRAPHY AND GLASS ART, THUS CREATING A CONFLUENCE OR 'SANGAM' OF VARIOUS ART FORMS.	THE REJUVENATED AND NEW VERSION OF MULTIPURPOSE COMPLEXES, TO BE KNOWN AS 'TAGORE CULTURAL COMPLEXES', WILL FOSTER AND COORDINATE ACTIVITIES IN THE STATE IN DIFFERENT CULTURAL FIELDS SUCH AS MUSIC, DRAMA, DANCE, LITERATURE, FINE ARTS, ETC. AND PROMOTE THROUGH THEM THE CULTURAL UNITY OF THE COUNTRY AND PROVIDE AVENUES FOR CREATIVE EXPRESSION AND LEARNING TO THE YOUNGER GENERATION.

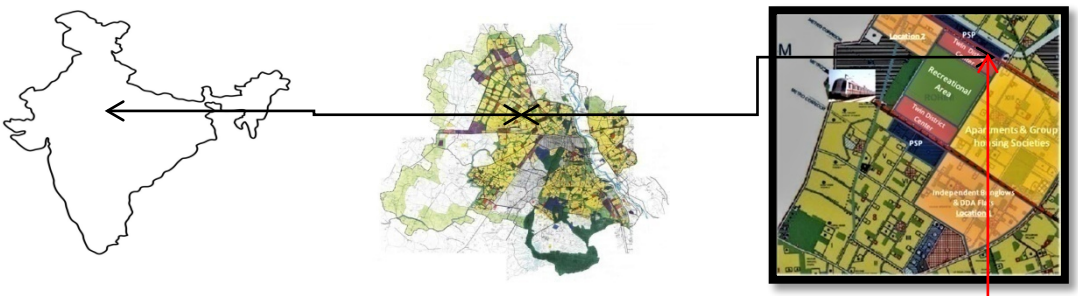
SITE INFORMATION

Delhi Development authority plans to set up socio-cultural centre to come up in northwest Delhi's Rohini ,Sector -12 , spread over 11 acres and the project will cost Rs 350 Crore . BUILT UP AREA-80,000 SQ.M .

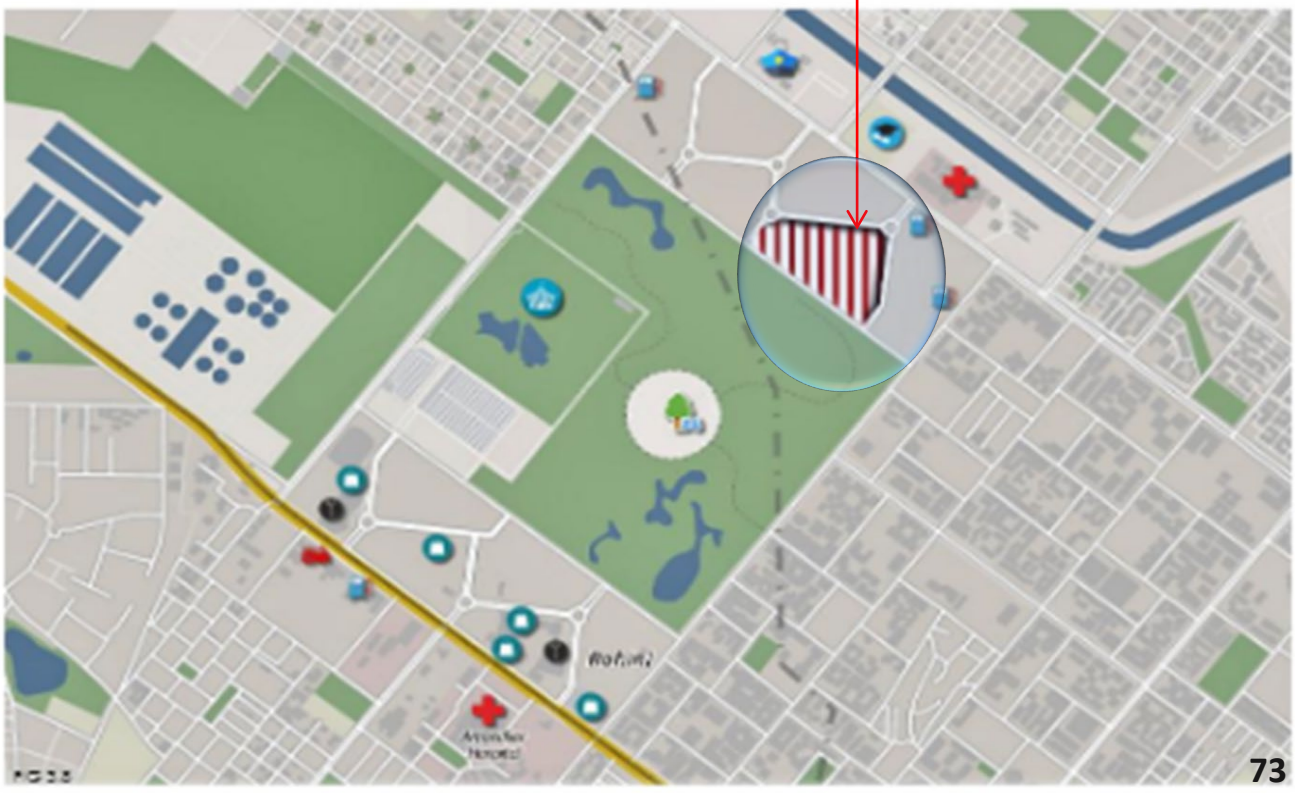


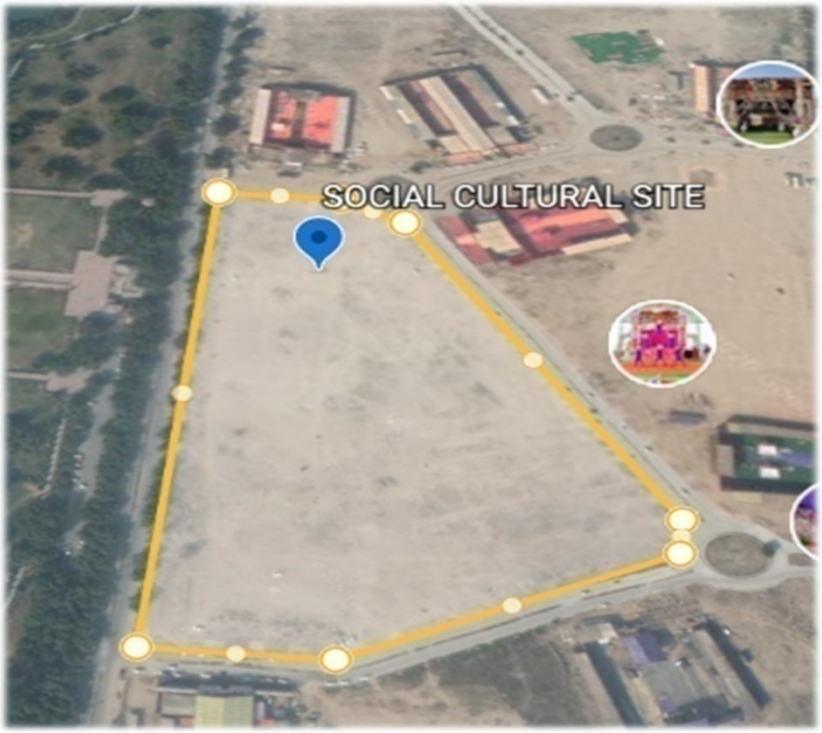
SITE INTRODUCTION

THE SITE IS LOCATED IN DISTRICT CENTRE IN ROHINI ,SECTOR12,NEW DELHI.SITE IS ADAJCENT TO 250 ACRE COMMUNITY PARK AND SURROUNDED BY RESIDENTIAL COMMUNITY .IT WOULD COME UP AS A GREAT OPPURTUNITY FOR THECOMMUNITY TO LIVE AND POSSESS THE MODERN CULTURE WHICH EXPRESS THEIR SOCIAL NEEDS OR DEMANDS IN THE FORM OF 'NATYA ACADEMY AND CULTURAL HUB' WHICH ENCOMPASSES A BEAUTIFUL SYNTHESIS OF ART AND CULTURE .



ROHINI SUB-city Project (Ph. I & II) was approved by DDA in1980 based on MPD-1962. It is predominantly a residential project on2497 Hac. Of land in North West Delhi within a distance of 15 Km. From Connaught Place in continuation of Shalimar Bagh and Pitampura Residential Schemes. The Area is situated along the Outer Ring Road between the two major traffic corridors- The G.T.Road with railway line To Karnal and Rohtak Road





SITE IS LOCATED IN TWIN DISTRICT CENTRE :-PLOT NO 4B,WHICH HAS ACCESS ROAD ON ALL SIDES. SITE IS IRREGULAR PENTAGONAL IN SHAPE.

DDA NORMS AS PER MPD 2021-

1.Delhi Development Authority (DDA) plans to set up CULTURAL CENTRE IN NORTHWEST DELHI'S ROHINI.

2.The socio-cultural centre will come up in Sector-12 AND WILL BE CENTRE FOR PERFORMING ARTS.

3.SPREAD OVER 11 .2 ACRES ,PROJECT WILL COST 350 CRORE;AND WILL BE COMPLETED IN 42 MONTHS.

4.BUILD-UP AREA ACHEIVED IS 80,000 SQ.M

5.These centres would be developed, maintained and operated on Public Private Partnership (PPP) mode by selected groups/corporates of repute.

6. To ensure that the centres are self-financing, 60% of the total floor area can be utilized for commercial PURPOSE AND 40% FOR OPERATING FACILITIES

7.this project is under private public partner .

8.the area provided for services should not exceed 30 % of the basement area.The storage, if provided in the basement, shall be counted in permissible f.a.r.

9.THE MEZZANINE FLOR AND SERVICE FLOOR WHEREVER PROVIDED SHALL BE CONSIDERED AS PART OF TOTAL F.A.R.

PROPOSED FACILITIES FOR SITE BY DDA :-

CENTRE FOR PERFORMING ARTS

#AUDITORIUM
#EXHIBITIONS
#OPEN AIR AMPHITHEATRE
#MULTIPURPOSE TRAINING AND MEETING ROOMS.

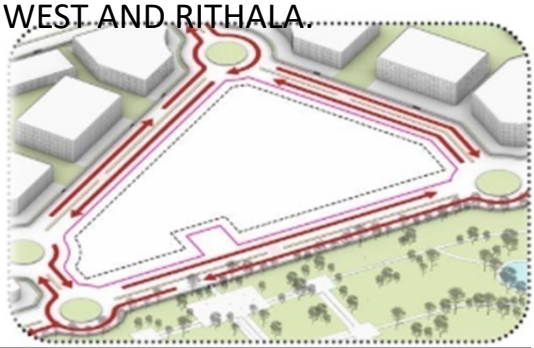
CENTRE FOR VISUAL ARTS

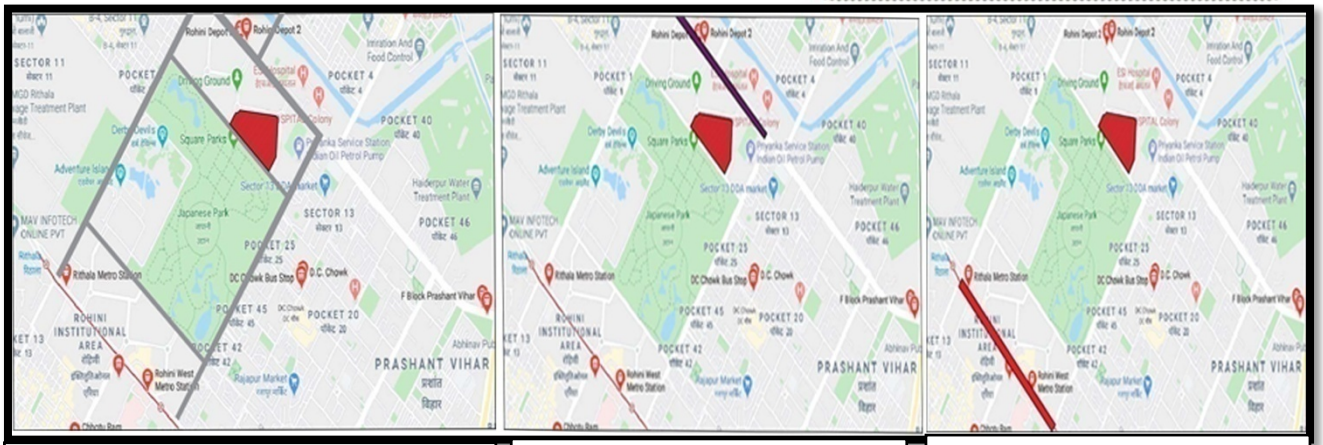
#MUSEUM
#PLANETARIUM
#TRAINING
#ADMINISTRATION
#INDOOR & OUTDOOR
RECREATIONAL FACILITES.

TRANSIT CONNECTIVITY

SITE SITS VERY CLOSE TO CENTRE OF THE METRO CONNECTED ZONES.SITE HAS ALL THE SIDE ACCESS WITH ROADS .SITE CAN BE ACCESS WITH 36 M ROAD FROM 3 SIDES AND 40 M ROAD FROM ONE SIDE.SITE IS VERY NEAR TO THE DELHI TRANSPORT AUTHORITY BUS STOP.IT HAS TWO BUS STOP IN ITS PROXIMITY NAMED ."E.S.I.BUS STOP;"AND "ROHINI DEPOT 2 BUS STOP."SITE ALSO HAS TWO METRO STATION NEARLY NAMED ROHINI WEST AND RITHALA.

KEY POINTS
ROAD IS ACCESS FROM ALL SIDES.
300 M FROM NEAREST BUS STAND.
1.5 KM AWAY FROM METRO STATION.
#15.5KM FROM NEW DELHI RAILWAY STATION.
#23.2 KM FROM INDIRA GANDHI INTERNAYIONAL.



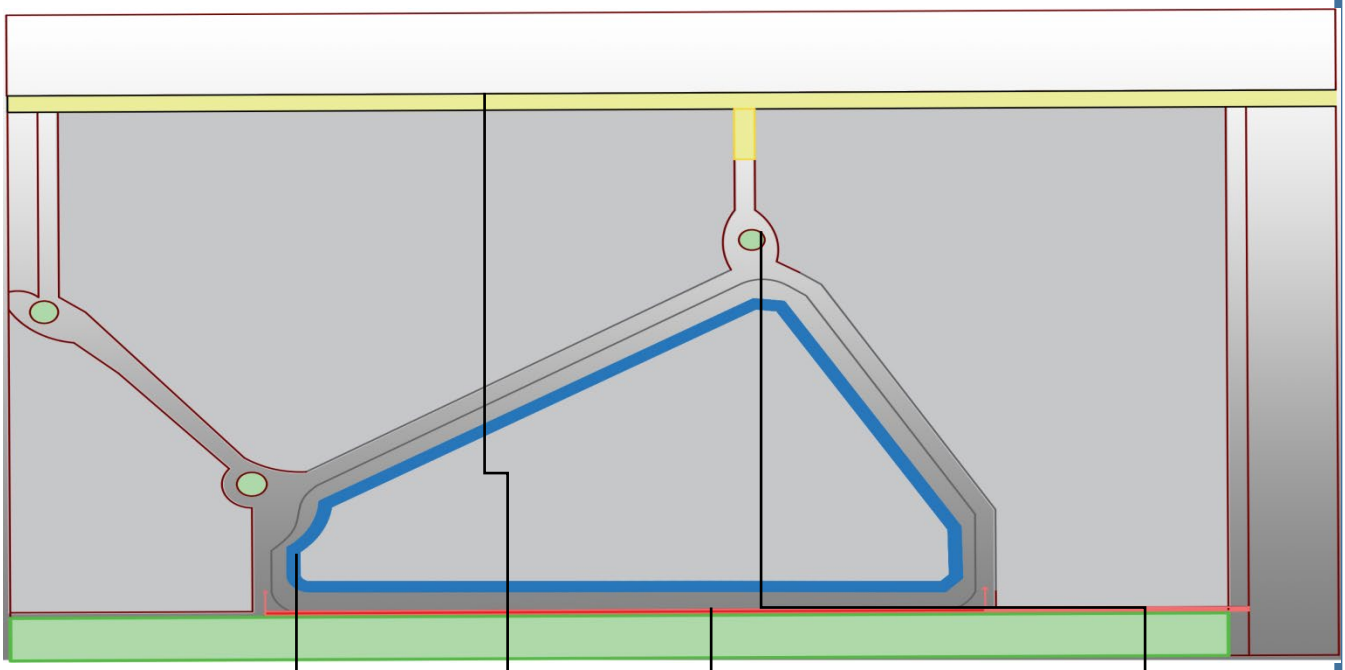


ACCESSIBLE ROADS ON ALL SIDE S

BUS STOP AROUND SITE

METRO ROUTE TOWARDS SITE

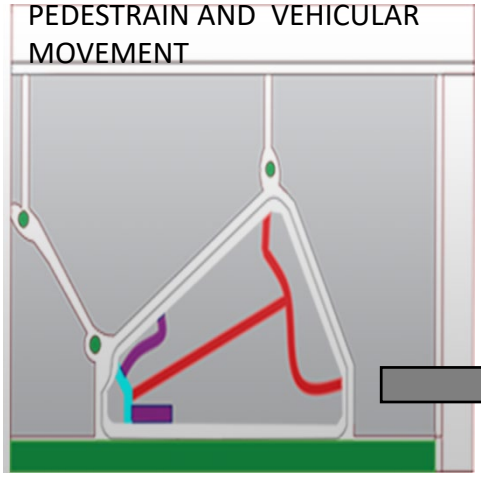
SITE SERVICE -PLOT NO-4B DISTRICT CENTRE –II

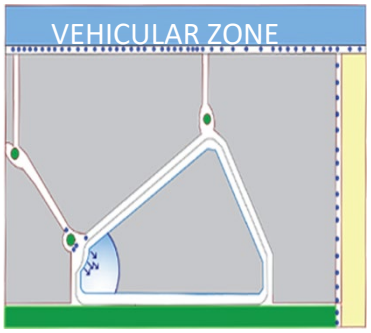


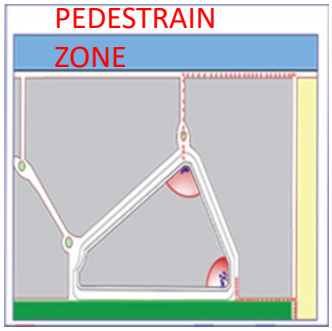
SITE CONNECTIVITY

MANHOLE	HIGH TENSION ELECTRIC CABLE	FIRE SERVICES	TREES

PEDESTRAIN AND VEHICULAR MOVEMENT

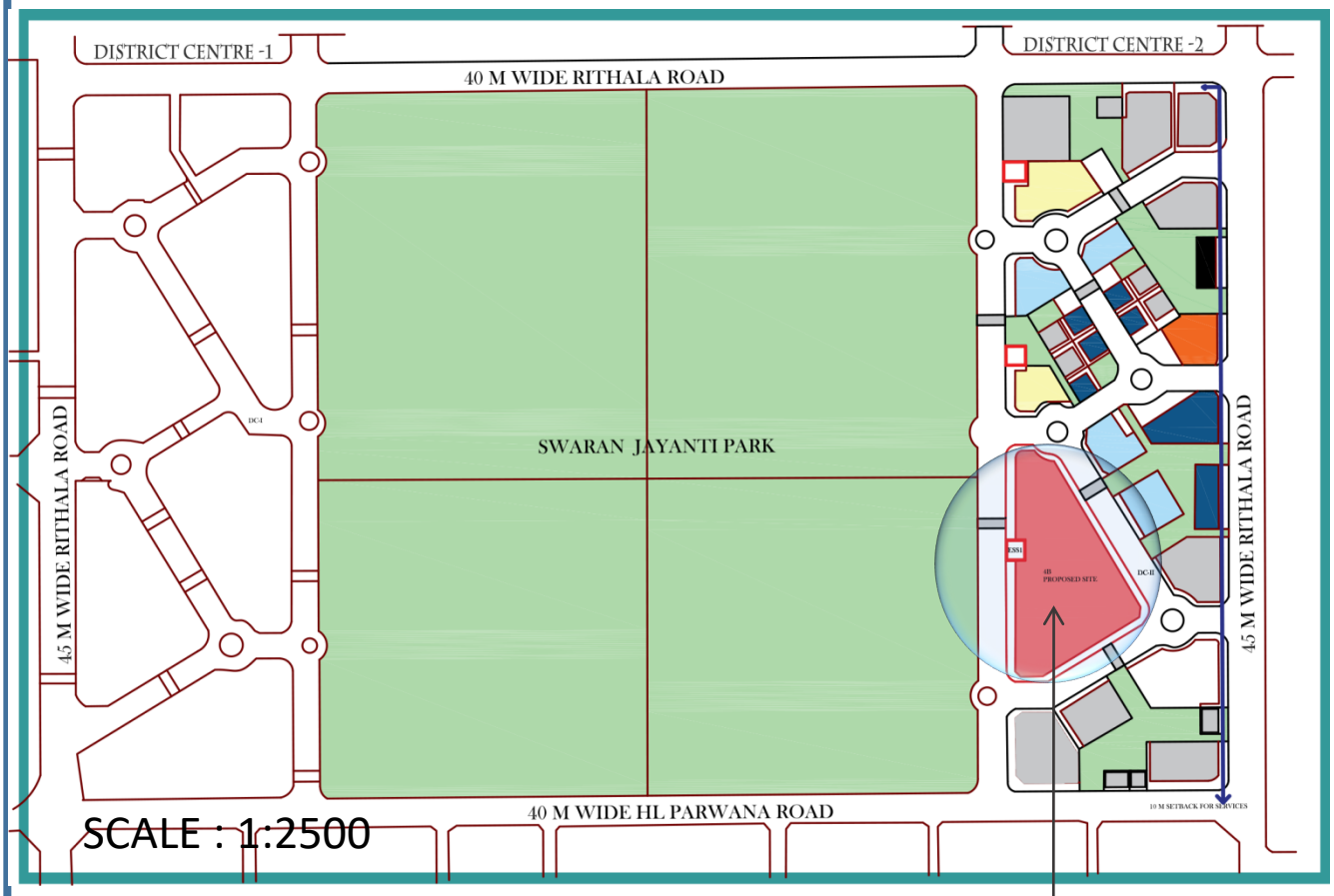






POSSIBLE PEDESTRAIN MOVEMENT
POSSIBLE VEHICULAR MOVEMENT
POSSIBLE SERVICE MOVEMENT

DISTRICT CENTRE ,ROHINI -,NEW DELHI



THE TWIN DISTRICTS HAS WELL DEFINED ZONES FOR RETAIL MALLS,CORPORATE OFFICES,AND CULTURAL AND ENTERTAINMENT ZONES LIKE FOOD COURTS,MULTIPLEX AND AMPHITHEATER .DISTRICT CENTRE IS SEPARATED BY A CENTRAL GREEN AREA OF ABOUT 100 HECTARES MADE UP OF GARDENS,AMUSEMENTS PARKS AND LEISURE AREAS;THAT PROVIDES GREEN BELT AND HELPS IN INCREASING THE VISUAL APPEAL TO THE PROJECT .IN DC-1 ,A LOT OF COMMERCIAL AND MULTIPLEX SPACES HAS COME UP LIKE CROWN PLAZA HOTEL,CITY CENTRE MALL,UNITY ONE MALL,AMBIANCE MALL.ALSO BETWEEN DISTRICT CENTRES EXISTS"THE METRO WALK MALL AND ADVENTURE ISLAND"OVER 64 ACRES OF SITE.

SITE CONDITION-TOPOGRAPHY

1.ABSENCE OF CONTOURS MEANS THAT THE GROUND IS FORESHORE FLAT.
2.THE SITE IS POLYGON IN SHAPE.
3.SOME AREAS OF SITE HAVE DEVELOPED WILD PLANTATION DUE TO RAINS.
4.THERE ARE MANY TREES LIKE
DECIDUOUS TREES,CREEPERS AND VINES AROUND THE SITE AND THE ADJACENT PARK.
5. SITE HAS VERY GENTLE SLOPE WHICH RUNS ALONG ROHINI INTERNAL ROADS CONNECTED WITH OUTER RING ROAD AND NH-1.
6.THE SITE HAS PROPER ACCESS TO NATURAL VENTILATION AND SUNLIGHT.

NATURAL VEGETATION PRESENT AT THE SITE

Trees can occupy a substantial part of a development site and can have a major influence on the site layout. Existing trees of good quality and value will greatly enhance new development, by providing an immediate appearance of maturity.ASHOKA,PEEPAL AND NEEM WERE FOUND AT THE BOUNDARY WALL OF THE SITE.

By their very nature, trees and green space provide benefits and add value to developments. The ability of trees to improve and maintain the quality of water, soil, and air and to remove pollutants from the air is well known. Trees also provide shade and help lower temperatures during hot weather.

SOIL ANALYSIS

The soils of the Delhi area are mostly light with subordinate amount of medium texture soils. The light texture soils are represented by sandy, loamy, sand and sany loam; whereas medium texture soils are represented by loam silty loam.

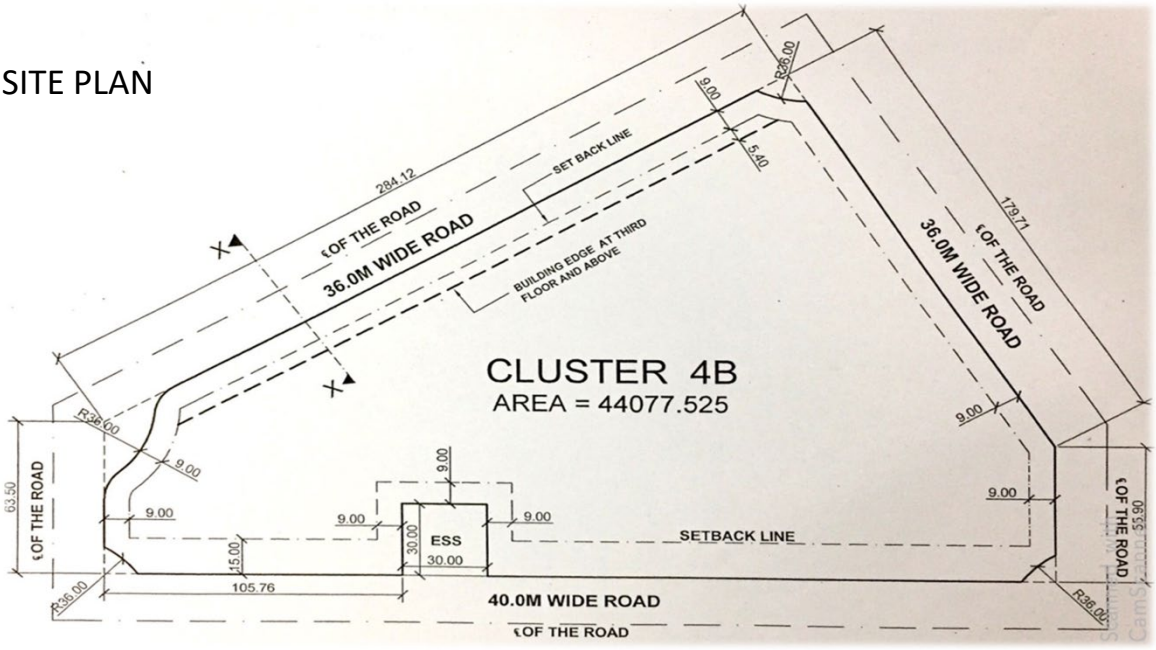
SOIL CONDITION OF DELHI IS FINELOAMY,ROCKY LAND -MISCELLANEOUS LAND ,WELL EXCESSIVE ,VERY DEEP WITH GENTLE SLOPE ;WHICH SHOWS THE PRESENCE OF ALLUVIUM SOIL.

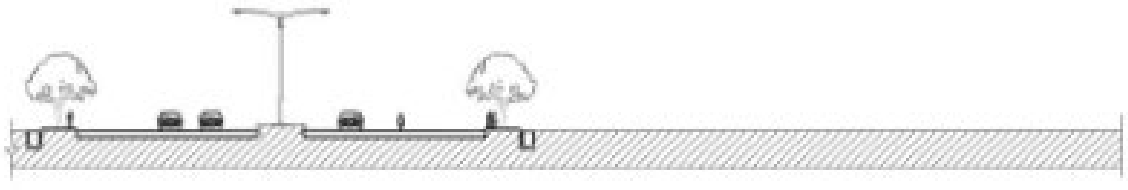
SITE IS COVERED WITH ALLUVIUM SOIL WITH ROCKY LAND.

DESIGN PROGRAM

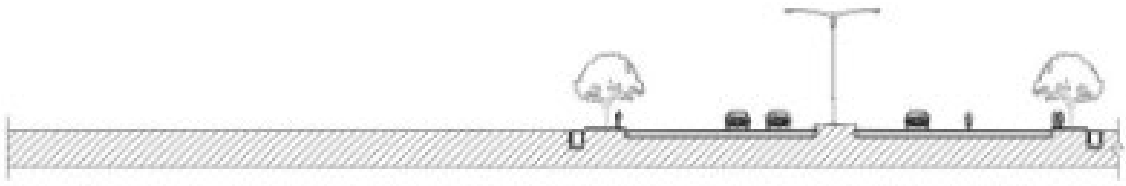
1. AREA OF SITE = 44077.525 SQ.M
2. PERMISSIBLE F.A.R = 1.2
3. PERMISSIBLE HEIGHT = 26 M
4. PERMISSIBLE GROUND = 35%
5. SETBACKS = 9M
6. PARKING NORMS = 2 E.C.S

SITE PLAN



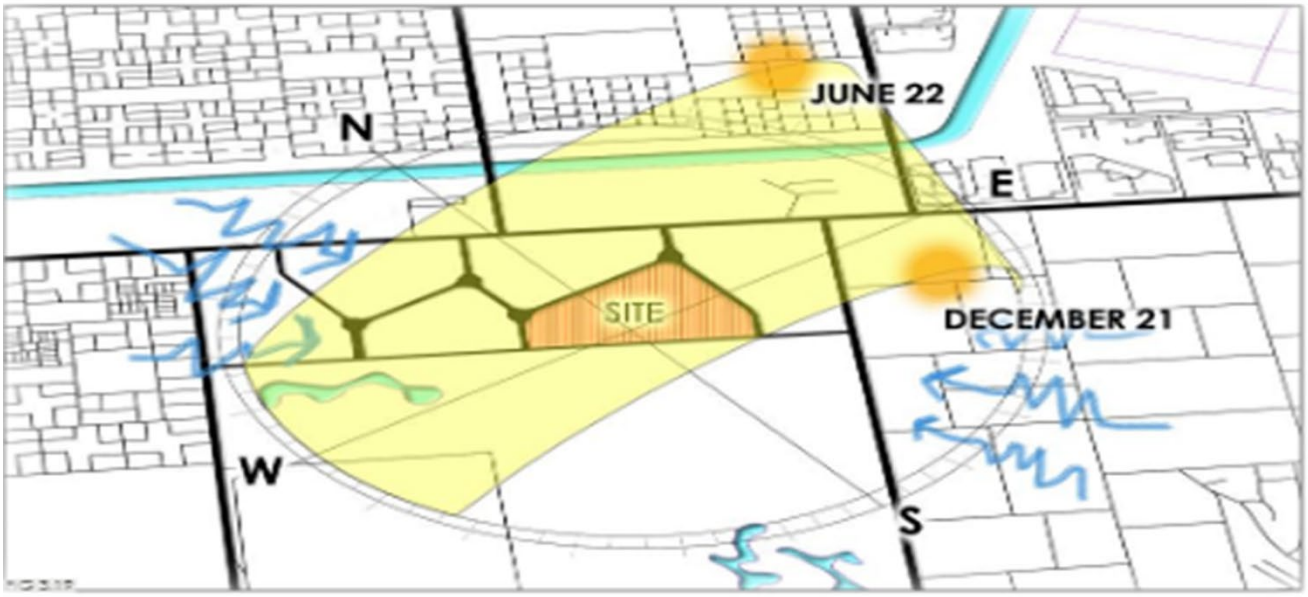


SITE SECTION AA'
1:500



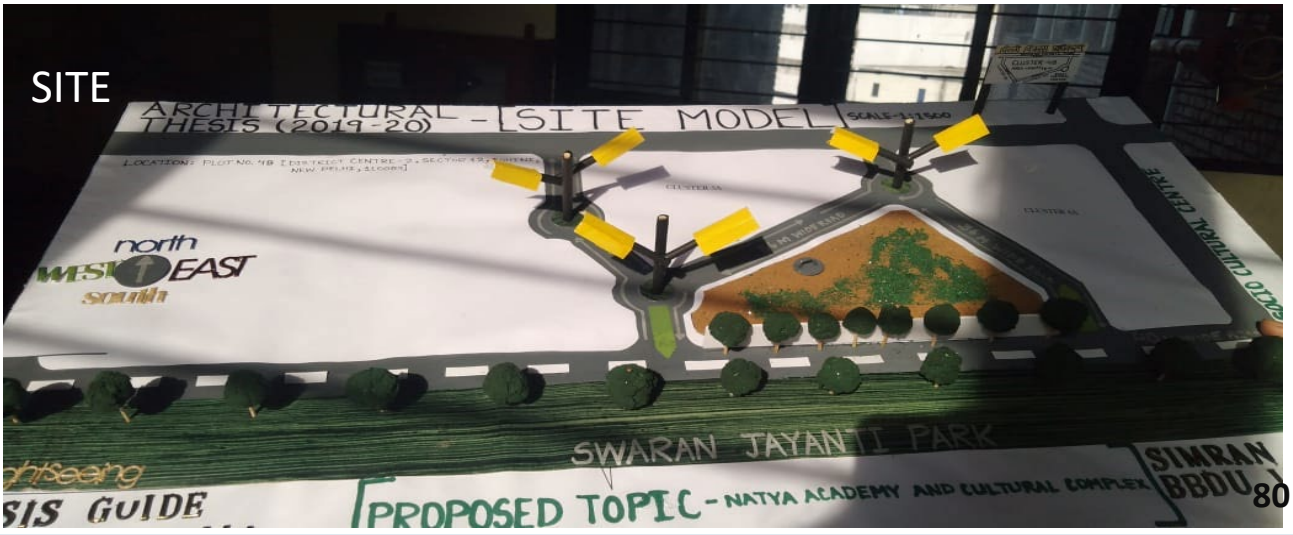
SITE SECTION AA'

. **CLIMATIC STUDY**



LOCAL FACTORS IN CLIMATE

1. Delhi lies in the landlocked Northern Plains of the Indian Subcontinent. Its climate is greatly influenced by its proximity to the Himalayas and the Thar Desert, causing it to experience both weather extremes.
2. Delhi has 5 distinct seasons, viz. Spring, Summer, Rainy, Autumn and Winter.
3. THE WEATHER IN DELHI HAS A HIGH VARIATION BETWEEN SUMMER AND WINTERTEMPERATURES AND PRECIPITATION.
4. THE CITY HAS RELATIVELY DRY SHORT WINTERS AND HAS A PROLONGED SPELL OF VERY HOT WEATHER.
5.DUE TO ITS SEMI-ARID CLIMATE SUMMERS HERE START IN EARLY APRIL ,AND PEAK IN MAY;MONSOON STARTS IN LATE JUNE AND LASTS UNTIL MID -SEPTEMBER;AND WINTER STARTS IN LATE NOVEMBER OR EARLY DECEMBER AND PEAKS IN JANUARY.
6. DELHI'S PROXIMITY TO THE HIMALAYAS RESULTS IN COLD WAVES LEADING TO LOWER APPARENT TEMPERATURE DUE TO WIND CHILL.
7.BASICALLY Delhi is a land locked city and has an extreme type of continental climate.



SWOT ANALYSIS

STRENGTHS

#SWARN JAYANTI PARK NEXT TO THE SITE WITH LARGE OPEN SPACES AND LAKES.
#EASY ACCESSIBILITY BY PUBLIC TRANSPORT,THAT IS BY BUS AND METRO.
#SITE SURROUNDED BY ROADS ON ALL SIDES.
#TREES LINE THE EDGES OF MAJOR ROADS THAT CAN ACT AS NOISE BARRIER.
#RESIDENTIAL AND INSTITUTIONAL NEIGHBOURHOOD PROVIDE OPPORTUNITY FOR THE SITE.
#RESIDENTIAL AND INSTITUTIONAL NEIGHBORHOOD PROVIDE OPPORTUNITY FOR THE SITE.

OPPORTUNITY

#THE PROJECT WILL GIVE ECONOMIC OPPORTUNITIES TO PEOPLE IN RESIDENTIAL AREA AND GENERATE
RECREATIONAL ATMOSPHERE IN THE REGION.
#CAN GIVE VIEWS TO THE PARK.
#NO SUCH FACILITY IS PRESENT IN THE VICINITY ,CAN BECOME GOOD FOCAL POINT FOR CULTURAL ACTIVITIES FOR SURROUNDING COMMUNITIES.
#CAN CATER TO A LARGER PUBLIC DUE TO GOOD CONNECTIVITY OF SITE.

WEAKNESS

#LARGE VACANT LAND NEAR TO THE SITE WHICH IS USED AS TEMPORARY TENT FOR WEDDING CEREMONIES OR EVEN AS DUMP YARD,THUS GIVES UNAESTHETIC VIEWS.
#SAFETY ISSUES DUE TO LESS ACTIVITY PATTERN ALONG PRIVATE EDGES OF THE SITE.
#NOT ENOUGH GOOD VIEWS AROUND SITE EXCEPT SWARN JAYANTI PARK ALONG ONE EDGE.

THREATS

#THE SUCCESS OF THE PROJECT DOES NOT DEPENDS ONLY ON THE BUILT ENVIRONMENT IT MIGHT NOT BE ABLE TO GENERATE GOOD FOOTFALL.
#SAFETY ISSUES ON SITE CAN BRCOME THREAT FOR THE PROJECT.

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CONCEPTUAL WORK

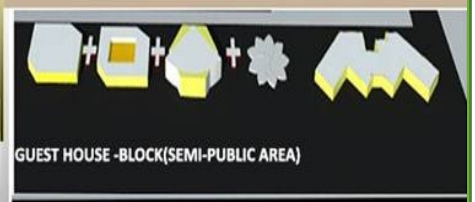
NAV RAS

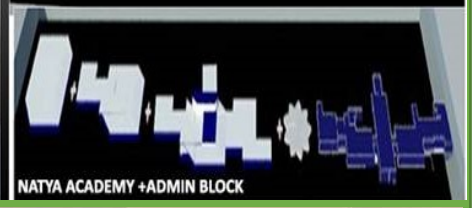
CONCEPT -(NAVRAS)

MY CONCEPT IS TO DESIGN A PERFORING ART CENTRE WHICH RECONNECTS THE INDIAN CLASSICAL DESIGN FORMS WITH A TOUCH OF CONTEMPORARY STYLE.IN MY DESIGN THE ENTRANCE SPACE IS DESIGNED TO SERVE AN INTRODUCTION TO THE CONCEPT OF NAVRAS OR NINE EMOTIONS..

THE NAVRASA,IN THE SCRIPTURES REFER TO THE NINE EXPRESSIONS THAT HUMAN OFTEN SHOW.THESE ARE LOVE (SHRINGAARA), LAUGHTER (HAASYA), COMPASSION (KARUNA-),ANGER (ROUDRA), COURAGE (VEERA), FEAR (BHAYAANAKA), DISGUST(BHEEBHATSYA) WONDER (ADBHUTA), PEACE(SHANTHA)

BUILDING FORM DEVELOPMENT
(WITH SYMBOL OF NAVRAS)





COMPONENTS OF MY NATYA ACADEMY & CULTURAL CENTRE

LANDSCAPE

MUSIC STUDIO

DANCE STUDIO

O.A.T

ART GALLERY

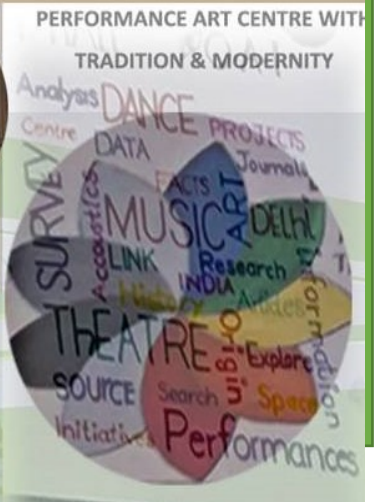
THEATRE

ART GALLERY

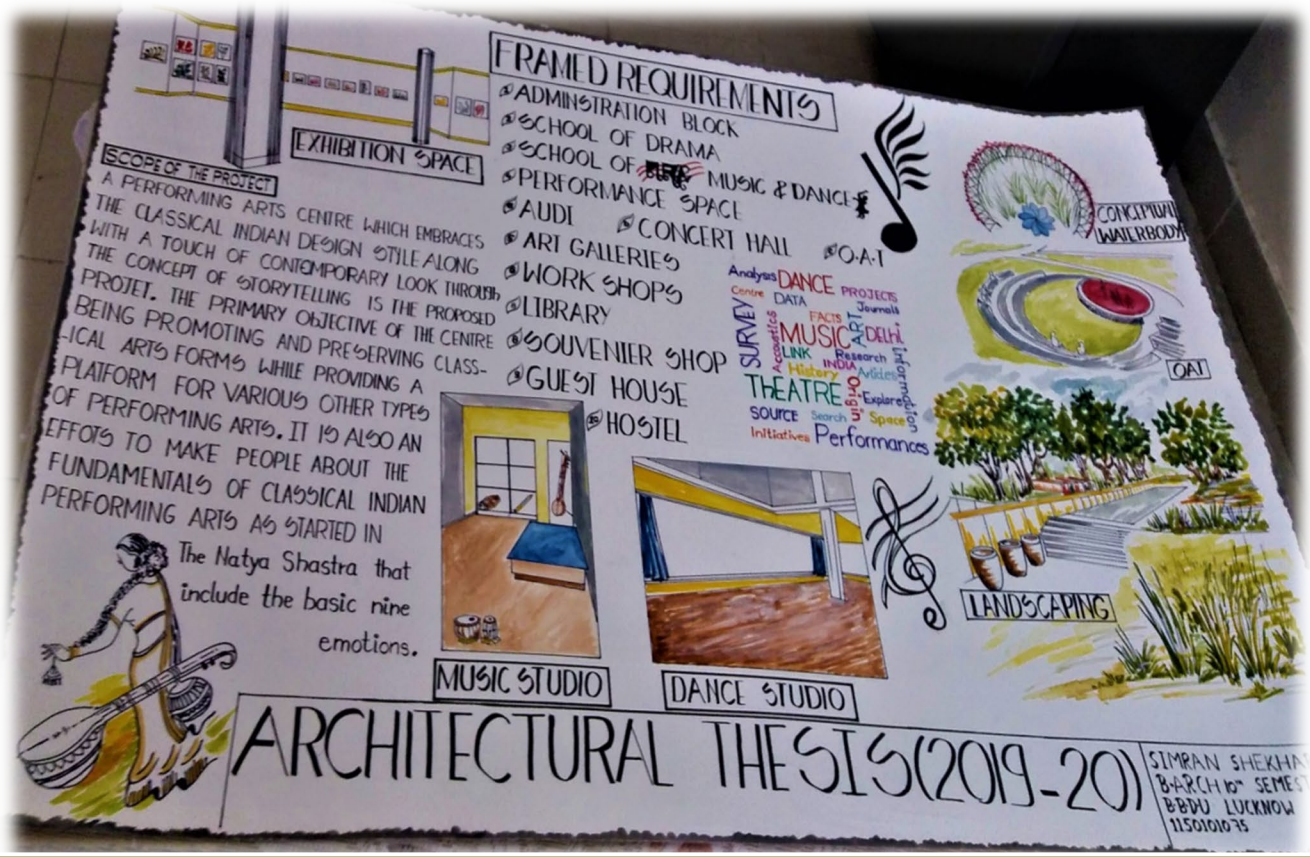
GUEST HOUSE

NATYA ACADEMY

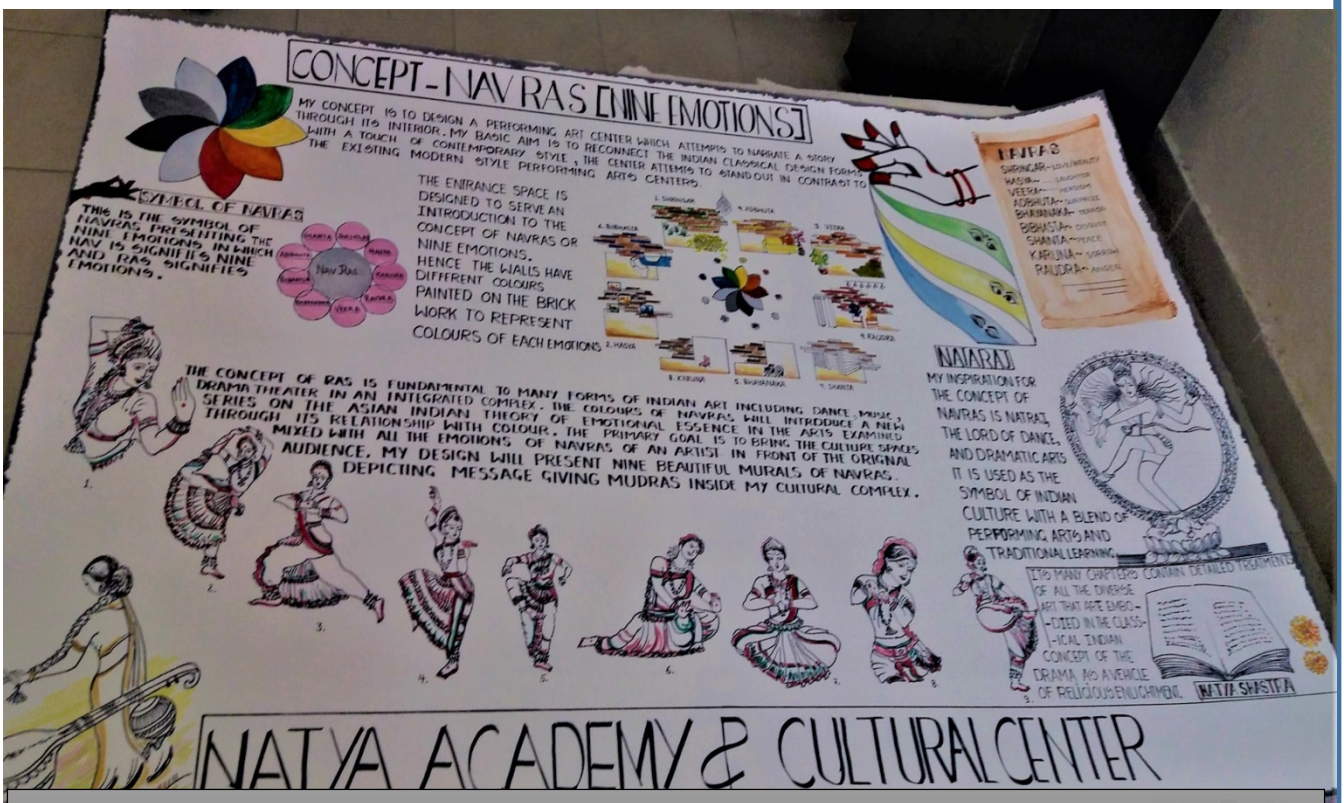
CULTURAL-CENTRE



SHEET 1 (INTRODUCTION & FRAMED REQUIREMENTS)

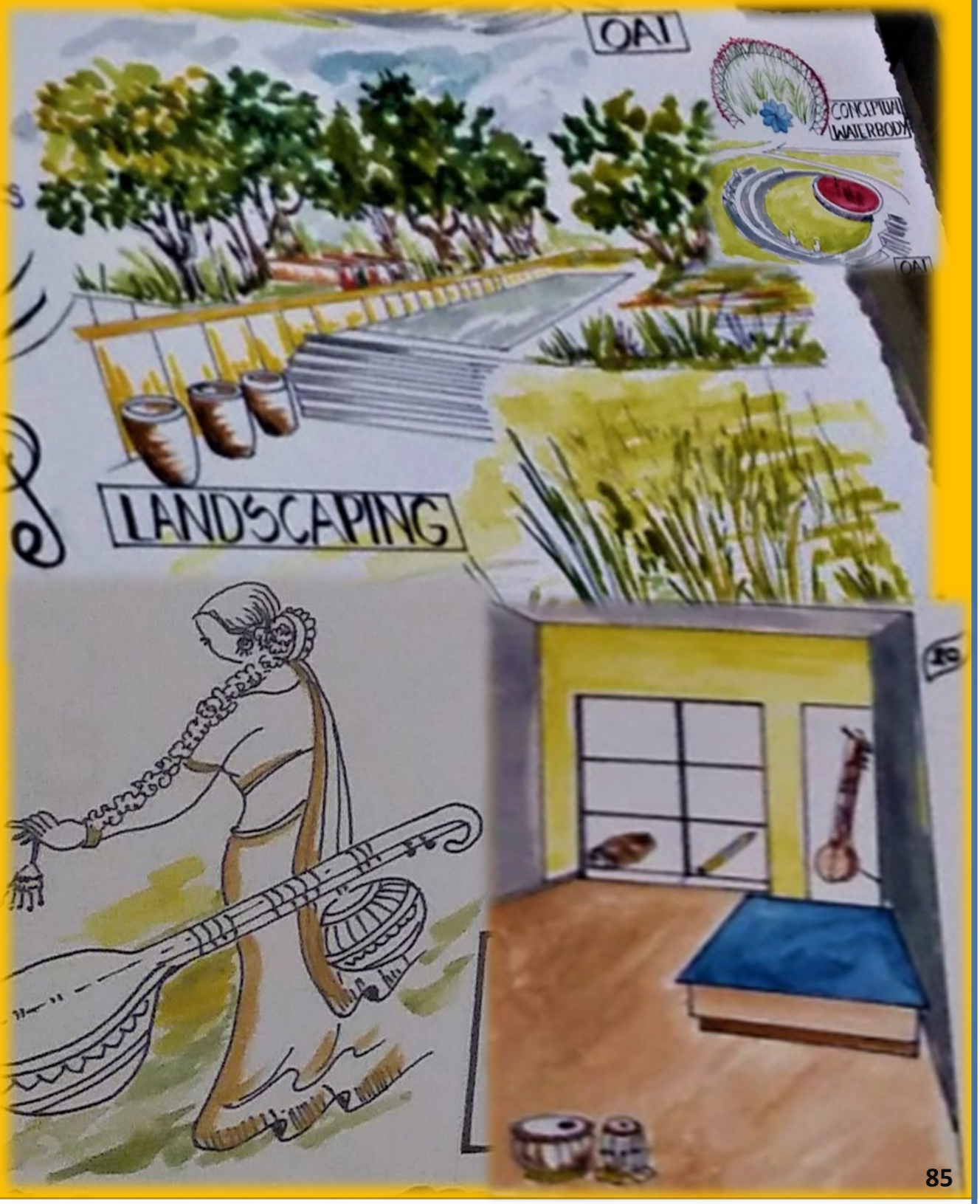


SHEET 2- ABOUT THE CONCEPT



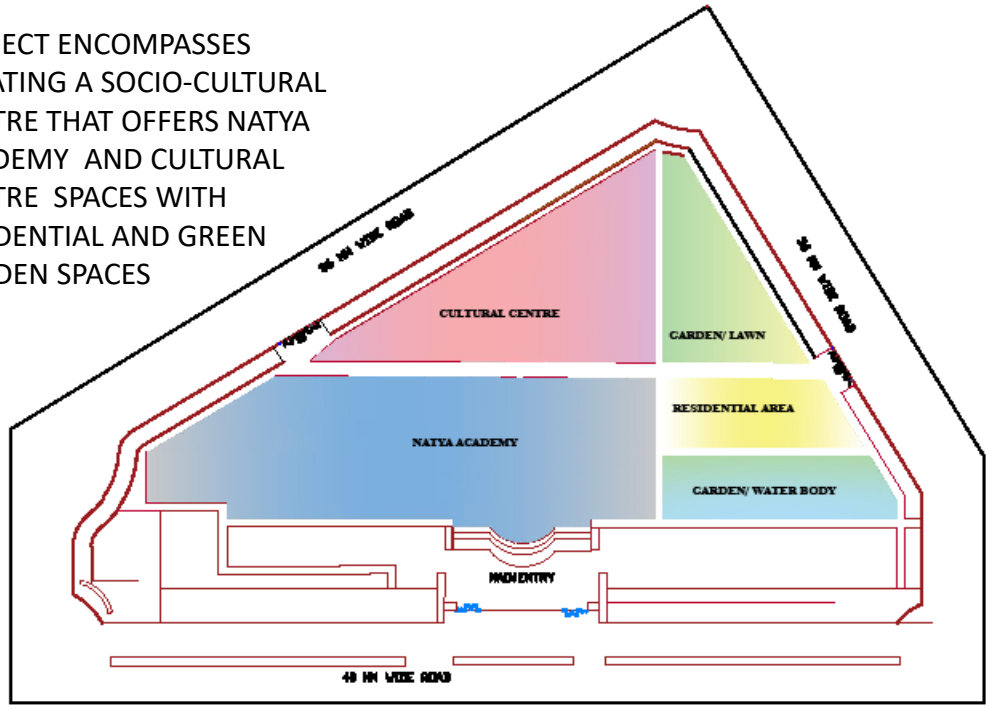
HAND WORK –SHEETS

CONCEPTUAL SITE DEVELOPMENT



STAGE 1 – DIVISION OF SPACES

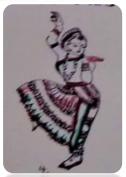
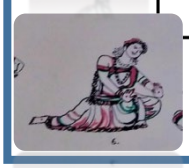
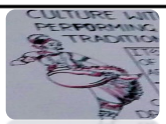
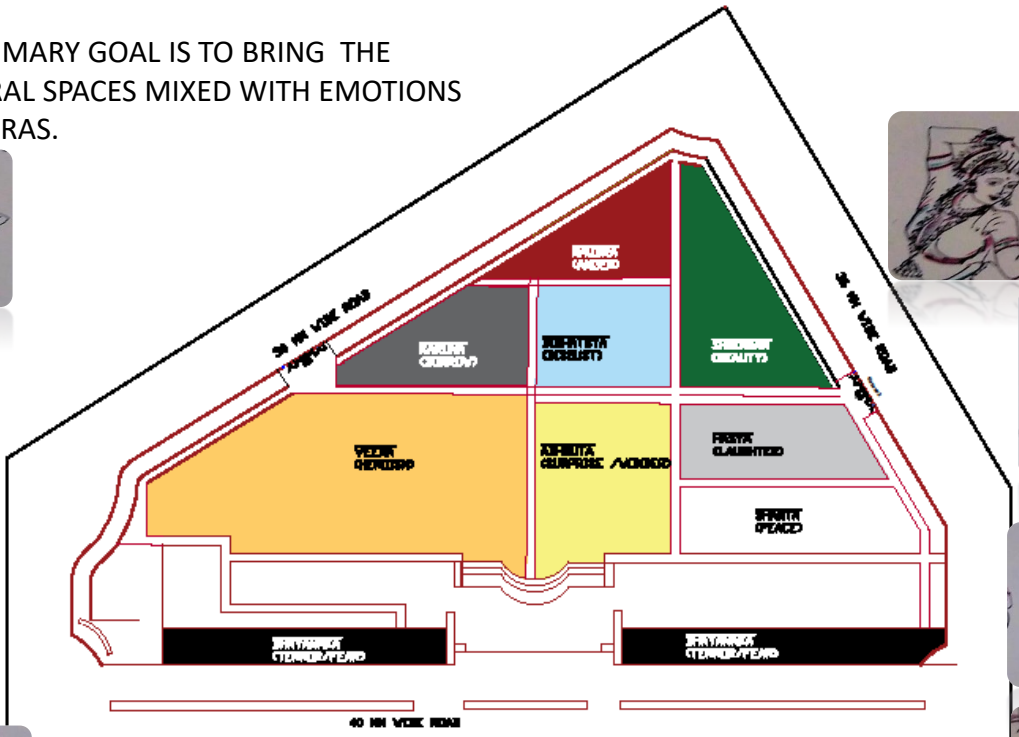
PROJECT ENCOMPASSES CREATING A SOCIO-CULTURAL CENTRE THAT OFFERS NATYA ACADEMY AND CULTURAL CENTRE SPACES WITH RESIDENTIAL AND GREEN GARDEN SPACES

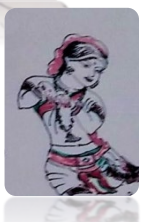
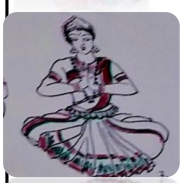
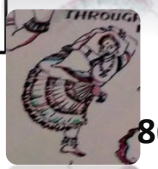


STAGE 2 – CONCEPTUAL DIVISION OF SITE INTO NINE PARTS OF NAVRAS

THE PRIMARY GOAL IS TO BRING THE CULTURAL SPACES MIXED WITH EMOTIONS OF NAVRAS.

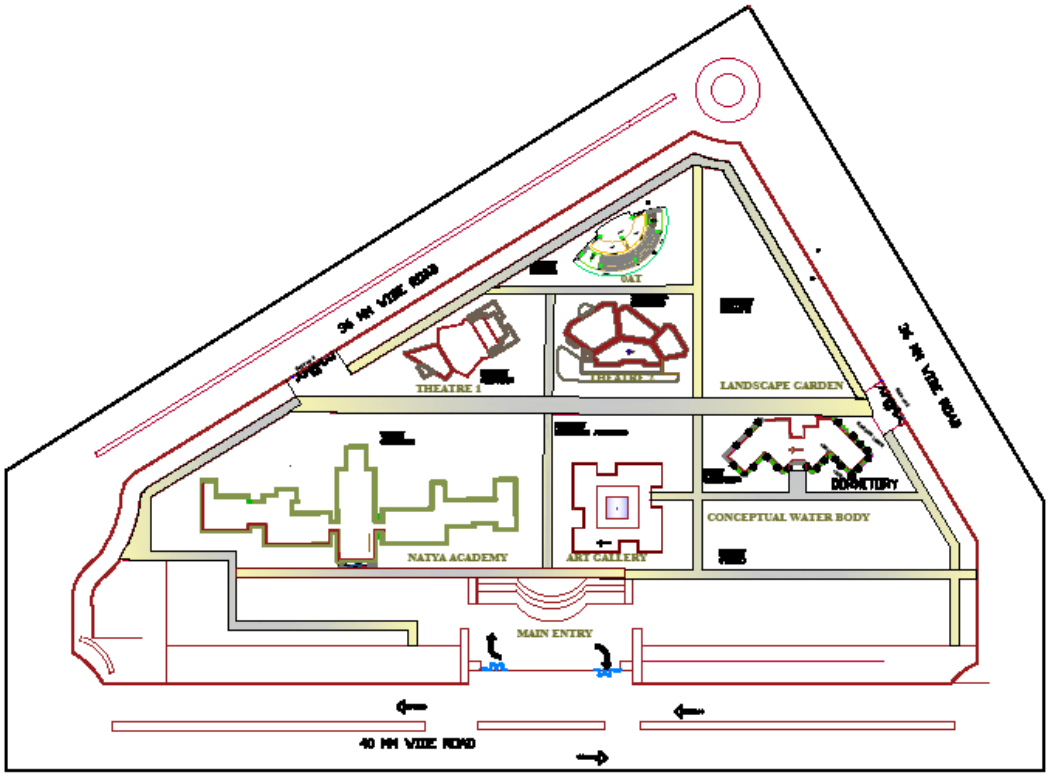


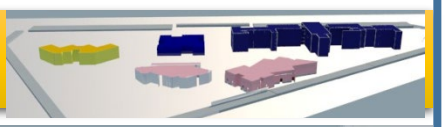




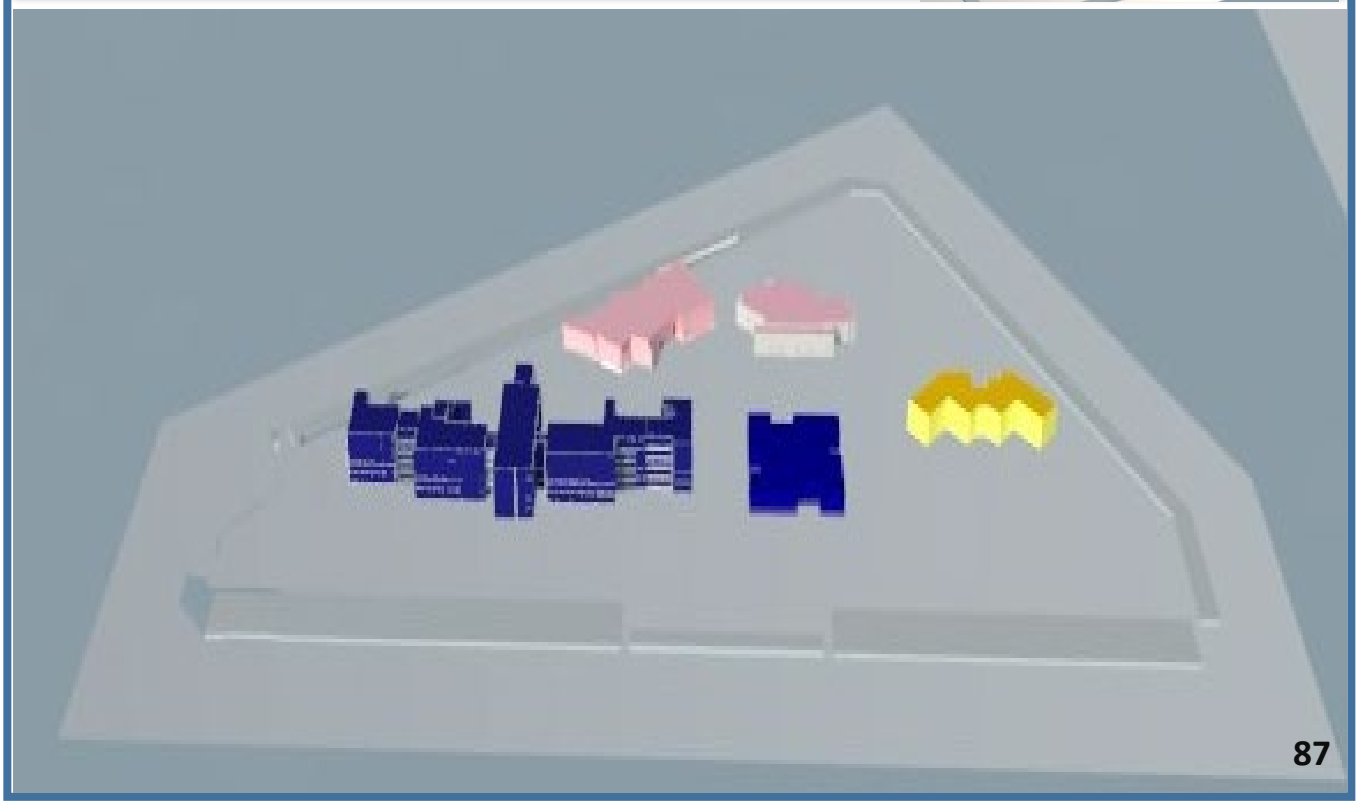
MY DESIGN WILL PRESENT NINE BEAUTIFUL MURALS OF NAVRAS WITH MESSAGE GIVING MUDRAS INSIDE MY CULTURAL COMPLEX.

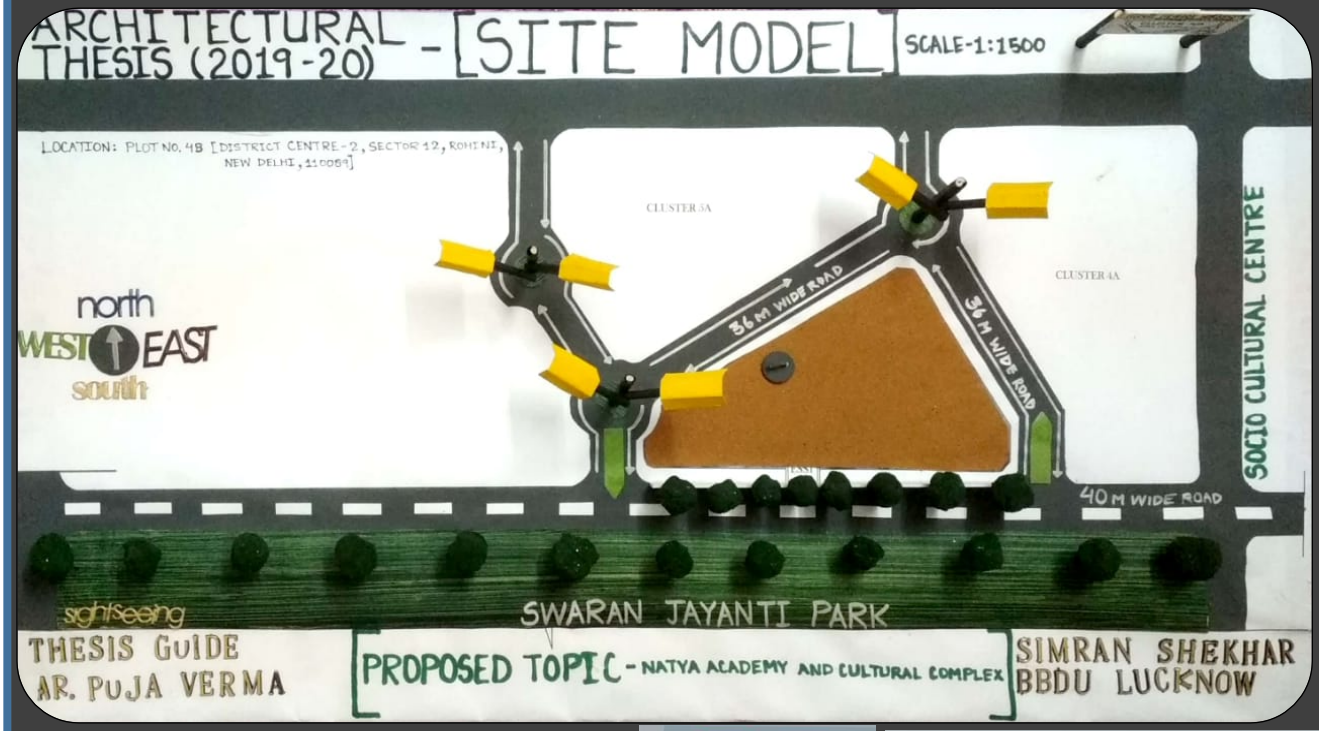
STAGE 3 - HORIZONTAL STACKING

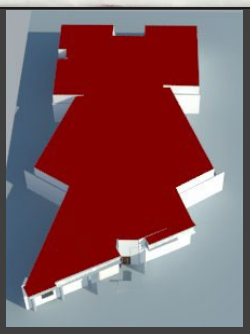


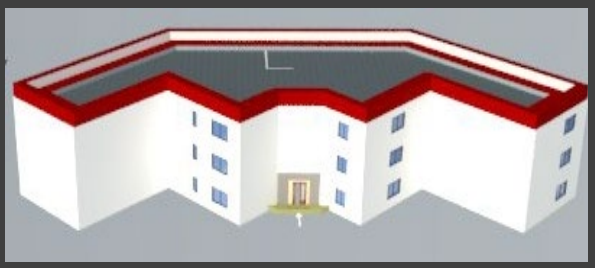
STAGE 4 – VERTICAL STACKING





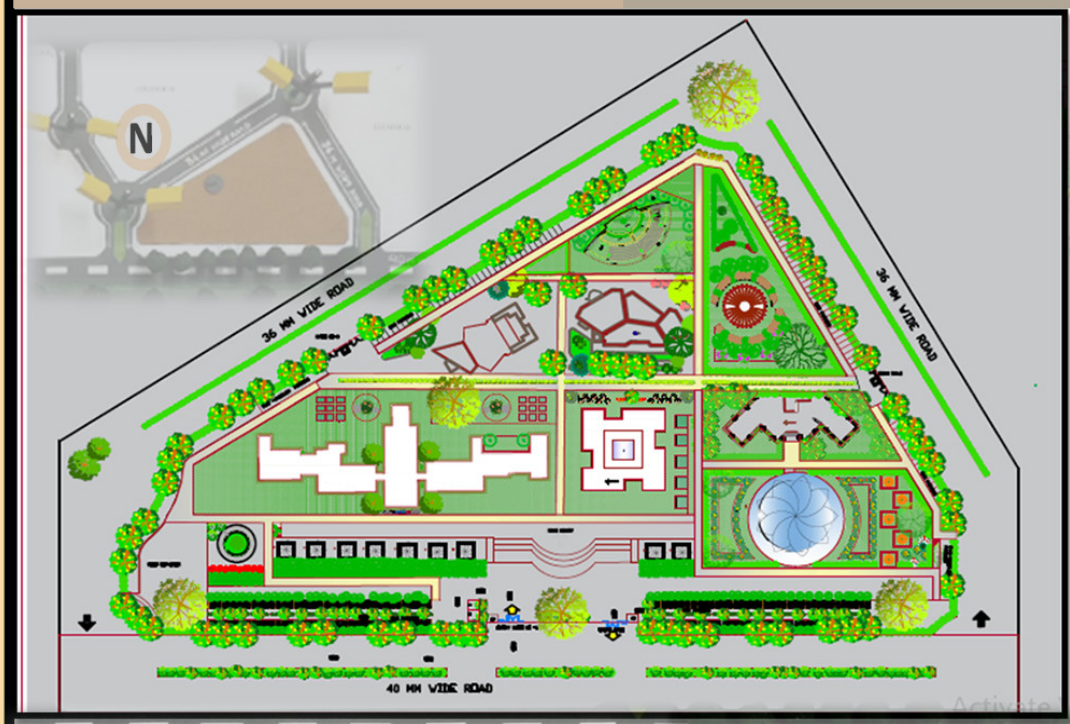

ARCHITECTURAL THESIS (2019-20) - [SITE MODEL
SCALE-1:1500
LOCATION: PLOT NO. 4B [DISTRICT CENTRE-2, SECTOR 12, ROHINI, NEW DELHI, 110085]
CLUSTER 3A
CLUSTER 4A
36 M WIDE ROAD
36 M WIDE ROAD
SOCIO CULTURAL CENTRE
40 M WIDE ROAD
north
WEST EAST
south
sightseeing
SWARAN JAYANTI PARK
THESIS GUIDE
AR. PUJA VERMA
PROPOSED TOPIC - NATYA ACADEMY AND CULTURAL COMPLEX
SIMRAN SHEKHAR
BBDU LUCKNOW

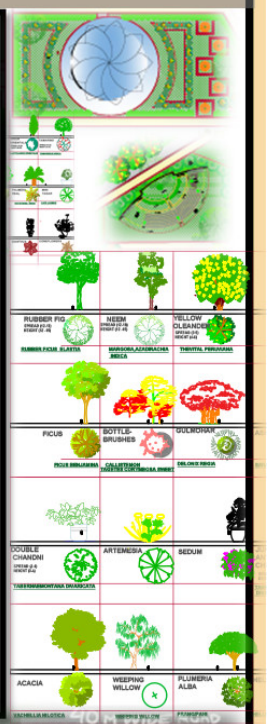




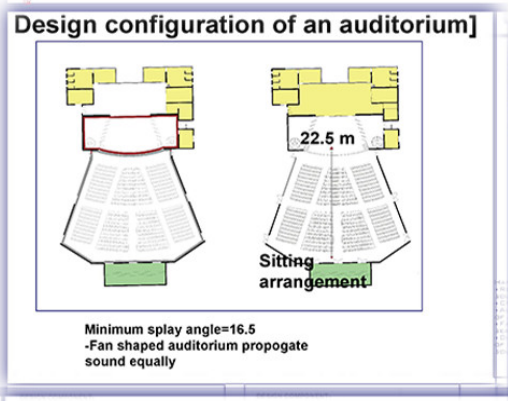
SITE PLAN WITH LANDSCAPE

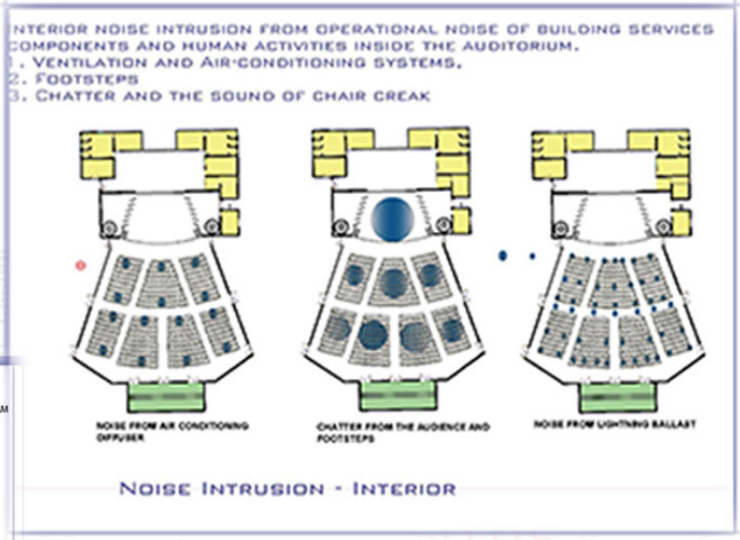
SITE IS DIVIDED INTO 9 PARTS WITH CONCEPTUAL WATER BODY (NAVRAS),PLACEMENT OF MY NATAYA ACADEMY ,ART GALLERY ,GUEST HOUSE AND THEATRES ARE DONE ACCORDING TO THE CONCEPT WHICH NARRATES THE SIGNIFICANCE OF NINE EMOTIONS IN NAVRAS

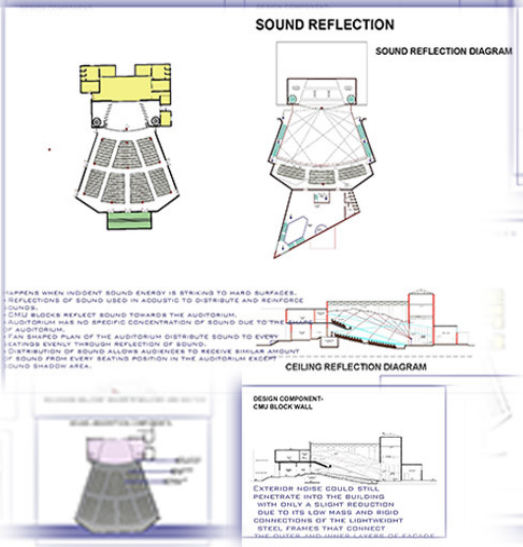


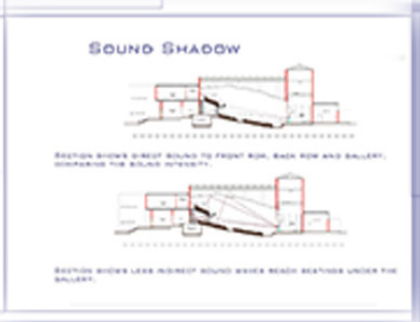


ACOUSTIC ANALYSIS OF AN AUDITORIUM (ELECTIVE II)

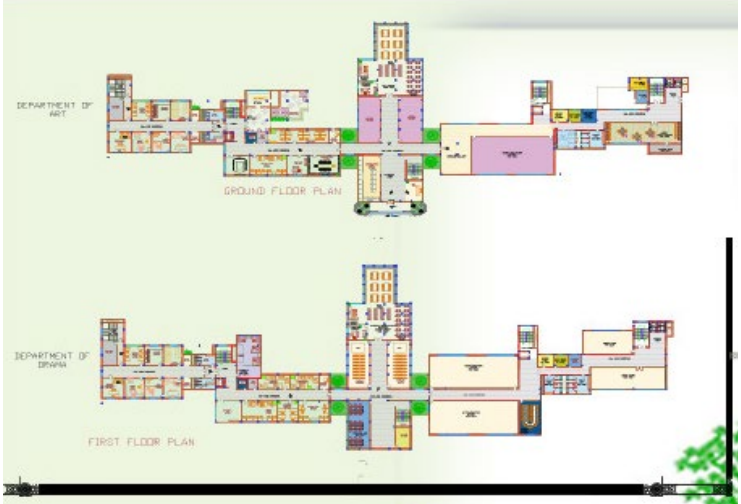








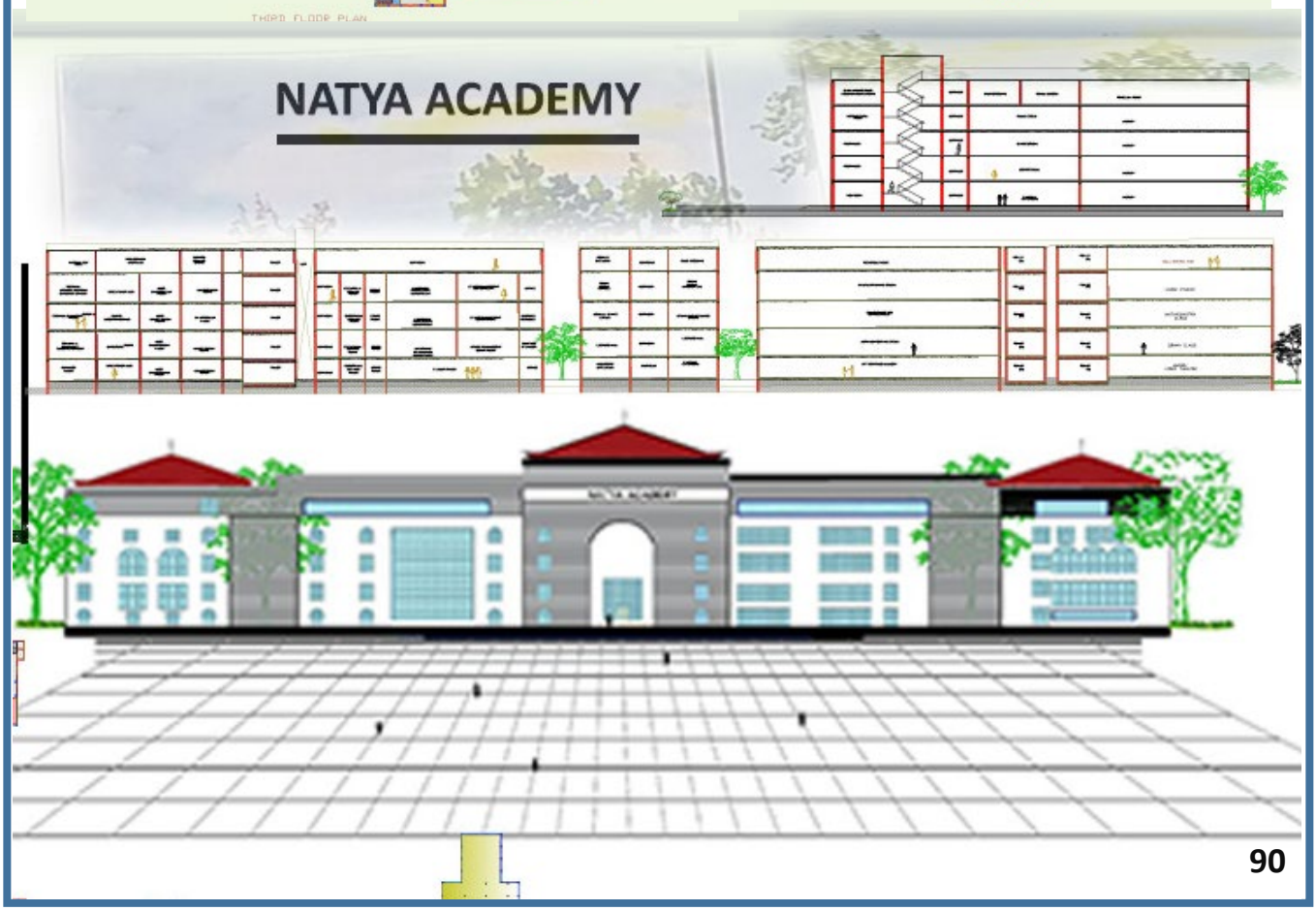
DESIGN PROGRAM



NATYA ACADEMY- INSTITUTIONAL BLOCK

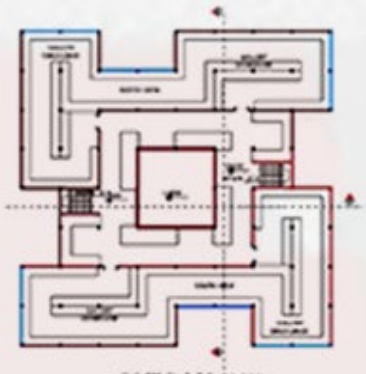
NATYA ACADEMY INCLUDES:

DEPARTMENT OF ART,DEPARTMENT OF MUSIC,DEPARTMENT OF DANCE,DEPARTMENT OF DRAMA &



ART GALLERY

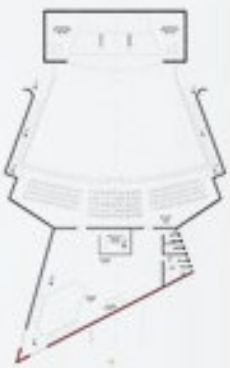
GROUND FLOOR PLAN



FIRST FLOOR PLAN

CULTURAL CENTRE (THEATRE)

GROUND FLOOR PLAN



FIRST FLOOR PLAN

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