

CLASSICAL DANCE AND MUSIC – INSTITUTE
(The Rhythm & Movement Center)

A THESIS

Submitted in partial fulfillment of the requirements for the award of
Bachelor of Architecture degree

By

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DEPARTMENT OF ARCHITECTURE
SCHOOL OF BUILDING AND ENVIRONMENT

SATHYABAMA

INSTITUTE OF SCIENCE AND TECHNOLOGY (DEEMED TO BE UNIVERSITY)
Accredited with Grade “A++” by NAAC | 12B Status by UGC | Approved by AICTE
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MAY - 2024



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DEPARTMENT OF ARCHITECTURE

BONAFIDE CERTIFICATE

This is to certify that Thesis Report is the bonafide work of **R. Ashok kumar (39210008)** who carried out the Thesis entitled "**Classical Dance and Music – Institute (The Rhythm & Movement Center)**" under our supervision from December 2023 to May 2024.

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DECLARATION

I, **R. ASHOK KUMAR** hereby declare that the Thesis Report entitled "Classical Dance and Music – Institute (The Rhythm & Movement Center)" done by me under the guidance of **Ar. Kavitha** (Internal Guide), **Dr. Arulmalar Ramaraj** (Internal Review Member) and **Ar. Ramji** (External Guide) Sathyabama Institute of Science and Technology is submitted in partial fulfillment of the requirements for the award of Bachelor of Architecture Degree.

DATE: 20-05-2024

PLACE: Chennai


SIGNATURE OF THE CANDIDATE

ACKNOWLEDGEMENT

I am pleased to acknowledge my sincere thanks to Board of Management of **Sathyabama Institute of Science and Technology** for their kind encouragement in doing this Thesis and for completing it successfully. I am grateful to them.

I convey my thanks to **Dr.Devyani Gangopadhyay**, Dean and Head of the Department, School of Building and Environment, Our Design Chair **Ar.Sarath C.Kanth**, Thesis Coordinator **Ar.Mohana Gopiraj** for providing me necessary support and details at the right time during the progressive reviews.

I would like to express my sincere and deep sense of gratitude to my Thesis Internal guide **Ar. Kavitha**, Internal Review member **Dr. Arulmalar Ramaraj** and External Guide **Ar. Ramji** their guidance, suggestions and constant encouragement which paved the way for the successful completion of my thesis work.

I wish to express my thanks to all Teaching and Non-teaching staff members of the **Department of Architecture**, all my family members helpful in many ways for completion of the Thesis.

R. ASHOK KUMAR

THESIS SYNOPSIS

Classical Dance and Music Institutes typically have a mission to nurture and develop talent in classical dance and music while fostering a deep appreciation for these art forms among students and the community.

Institutes offer comprehensive training programs in various classical dance forms such as ballet, Bharatanatyam, Kathak, Odissi, and others, as well as classical music genres like Hindustani, Carnatic, Western classical, and more. The curriculum often includes practical instruction, theory classes, performance opportunities, and workshops with master artists. Classical Dance and Music Institutes provide platforms for students to showcase their talents through recitals, concerts, stage productions, and collaborations with other artists and performing arts organizations. These performances not only allow students to apply their training but also contribute to the preservation and dissemination of the classical arts.

Institutes often engage with the broader community through outreach programs, educational initiatives, and cultural events. They may offer outreach classes in schools, conduct workshops in underserved communities, and participate in festivals and cultural exchanges to promote awareness and appreciation of classical dance and music.

Classical Dance and Music Institutes play a vital role in preserving and transmitting cultural heritage through the teaching and practice of traditional dance and music forms. By upholding artistic traditions and techniques passed down through generations, these institutes contribute to the continuity and vitality of the classical arts.

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CHAPTER 1

INTRODUCTION

1.1 WHAT IS PERFORMING ART

Performing Arts are arts or skills that require a performance in front of a public audience. Examples are acting, singing, and dancing. Other forms of the Performing Arts include opera, theater, magic or illusion performances, mime, spoken word, recitation, and public speaking.

1.2 WHAT IS CLASSICAL MUSIC

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

1.3 AIM

To design a state-of-the-art classical dance and music institute that not only serves as a center for artistic expression but also fosters a vibrant cultural community. The aim is to create a space that seamlessly integrates architectural aesthetics with the functional needs of performers, instructors, and visitors, while also promoting sustainability and accessibility. Through thoughtful design, the institute aims to inspire creativity, preserve tradition, and facilitate the exchange of knowledge and appreciation for classical arts.

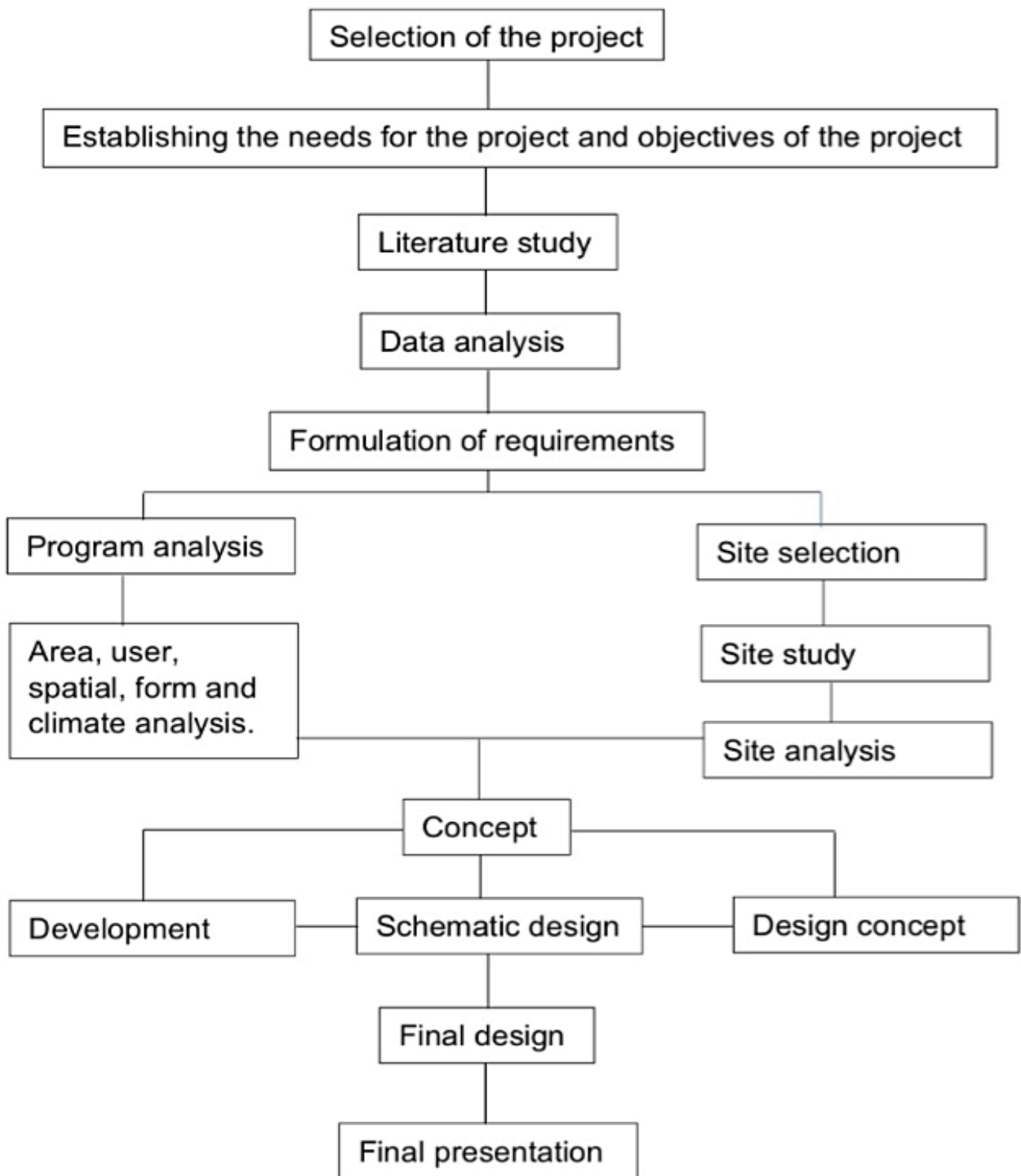
1.4 OBJECTIVE

-  To preserve and promote traditional performing arts that are integral to Tamil Nadu's rich cultural heritage.
-  To provide formal education and training programs in various traditional art forms, ensuring the continuity of skills and knowledge.
-  To support and nurture the talents of artists in the region, fostering their artistic development and growth.

1.5 SCOPE

-  To conduct research on traditional art forms, document historical practices, and contribute to the academic understanding of these art forms.
-  To provide state-of-the-art facilities and infrastructure for the training, rehearsal, and performance of traditional art forms.
-  To facilitate cultural exchange programs, collaborations, and partnerships with other institutions and artists nationally and internationally.

1.6 METHODOLOGY



CHAPTER 2

2.1 Literature Case Studies:

2.1.1 Regional Music And Dance School Of Saint Paul



Figure 1– Regional music and dance of saint paul

Project: The Regional Music and Dance School of Saint Paul is a cutting-edge educational facility designed to foster creativity, collaboration, and artistic expression. Situated in the heart of Saint Paul, the building serves as a hub for aspiring musicians and dancers from the region, providing state-of-the-art facilities for learning, practicing, and performing.

Design Concept: Peripheriques Marin+Trottin Architectes drew inspiration from the dynamic and expressive nature of music and dance for the design concept. The architecture reflects fluidity and rhythm, with curved forms and interconnected spaces that encourage movement and interaction.

Design Approach: The building features flexible and dynamic spaces that cater to the diverse needs of music and dance education. Studios, practice rooms, and performance spaces are strategically arranged to allow for a seamless flow between activities. A central amphitheater serves as the focal point for performances and gatherings. The amphitheater is designed to accommodate various types of performances, from intimate chamber music recitals to large dance productions. In the garden, the planted organic-shaped blocks are limited by the position of the benches, encouraging a pleasant journey or a pause. If Cimendef building was a book, the cover remains unaltered but the content gets more and more complex, becoming a spatial palimpsest. The urban and symbolic qualities of the building stay the same as today. Also, its visual and physical porosity remains. The modifications are subtle, we re-use all the large and empty levels made for the previous program. The place is transformed to become multi-functional with a

diversity of spaces (drums room, dance studio, co-working space, orchestra room...). The view of huge pictures on ceilings was an important element of the original project. Now it's harder to understand those horizontal paintings, but it tenfold the interpretations and reinforces its power of distancing.



Figure 2- Floor Plan

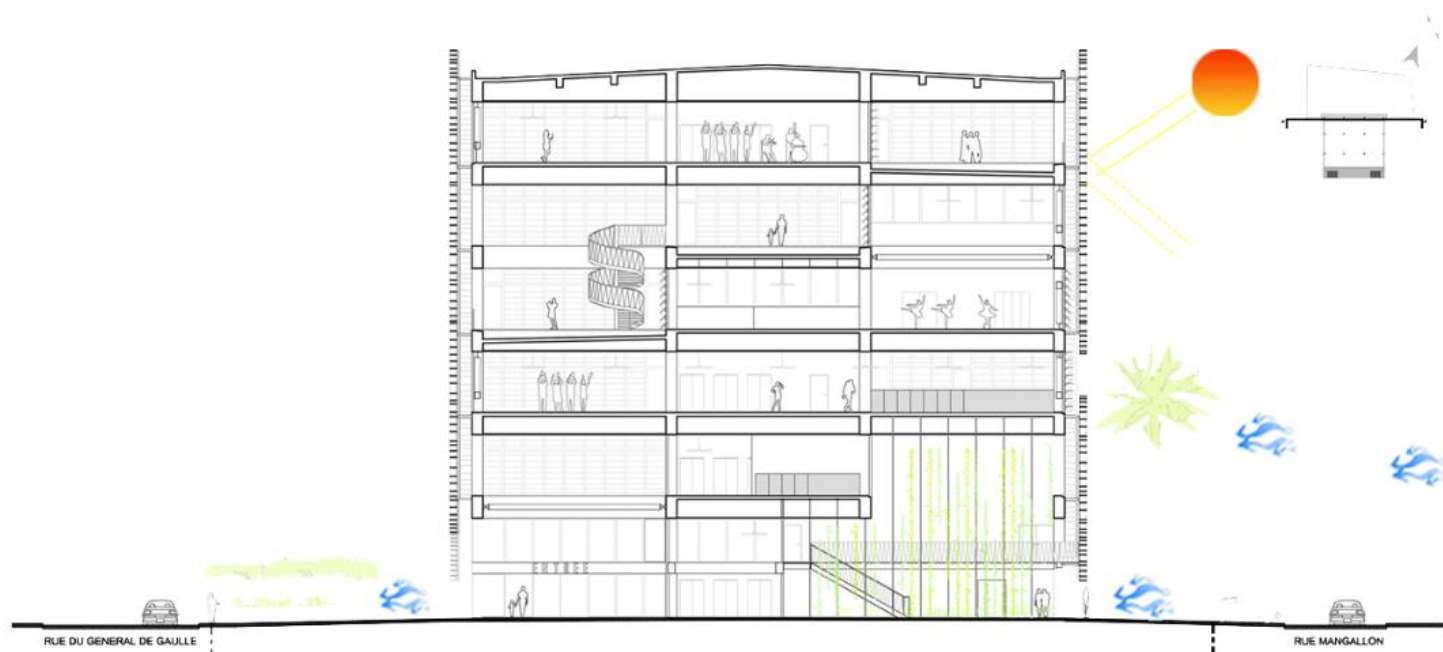


Figure 3- Section

The building shape is a 34m side cube. The idea of an urban landmark is enhanced by a strong aesthetic vocabulary of the volume related to the “book” media: façades are structured by a stack of wavy lines reminiscent of the book pages pattern. Those “pages” are solar shading systems vibrating around the construction. It generates a warm filtered light, maintaining an optimum thermal comfort. This is reinforced by façades made of louvres window blades which creates openings to naturally ventilate the building.

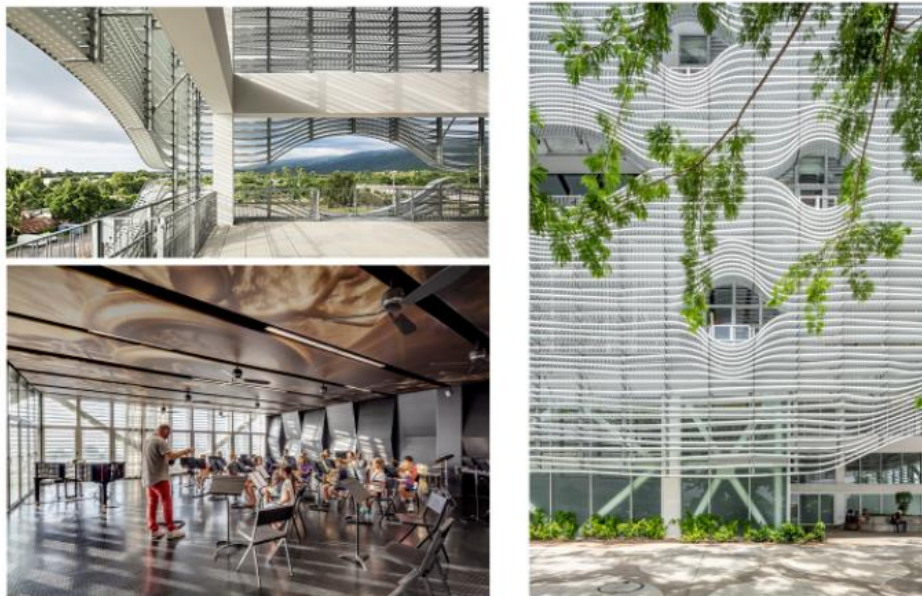


Figure 4— Façade Materials

CASE STUDY - 01

Regional Music and Dance School of Saint Paul

PROJECT:

The Regional Music and Dance School of Saint Paul is a cutting-edge educational facility designed to foster creativity, collaboration, and artistic expression. Situated in the heart of Saint Paul, the building serves as a hub for aspiring musicians and dancers from the region, providing state-of-the-art facilities for learning, practicing, and performing.

LOCATION:

Google Maps Centre Glencoe



Location: Saint Paul, MN 55109, 44.957572



DESIGN CONCEPT:

Peripheriques Marine-Tromin Architects drew inspiration from the dynamic and expressive nature of music and dance for the design concept. The architecture reflects fluidity and rhythm, with curved forms and interconnected spaces that encourage movement and interaction.

DESIGN APPROACH:

The building features flexible and dynamic spaces that cater to the diverse needs of music and dance education. Studios, practice rooms, and performance spaces are strategically arranged to allow for a seamless flow between activities. A central amphitheater serves as the focal point for performances and gatherings. The amphitheater is designed to accommodate various types of performances, from intimate chamber music recitals to large dance productions. In the garden, the planted organic-shaped blocks are limited by the position of the benches, encouraging a pleasant journey on a path. The building was a host, the center remains unaltered but the content gets more and more complex, becoming a spatial palimpsest. The urban and symbolic qualities of the building stay the same as today. Also, its visual and physical porosity remains. The modifications are subtle, we re-use all the large and empty levels made for the previous program. The place is transformed to become multi-functional with a diversity of spaces (drama room, dance studio, co-working space, rehearsal room...). The view of huge pictures on ceilings was an important element of the original project. Now it's harder to understand those horizontal paintings, but it unfolds the interpenetration and reinforces its power of disarming.



The building shape is a 34m side cube. The idea of an urban landmark is enhanced by a strong aesthetic vocabulary of the volume related to the "book" media: facades are structured by a stack of wavy lines reminiscent of the book pages pattern. These "pages" are solar shading systems vibrating around the construction. It generates a warm filtered light, assuring an optimum thermal comfort. This is reinforced by facades made of louvers window blades which creates openings to naturally ventilate the building.



INFERENCE:

- PUBLIC SPACES
- SEMI-PUBLIC SPACES
- PRIVATE SPACES

INFERENCE:

The building incorporates energy-efficient systems, green roofs, and rainwater harvesting. Large windows maximize natural light, reducing the need for artificial lighting during the day.

The architects worked closely with acoustic engineers to ensure optimal sound quality in performance spaces. Cutting-edge technology and carefully chosen materials contribute to a superior acoustic environment.

The Regional Music and Dance School has become a cultural hub, attracting students and artists from across the region. Its architecture not only facilitates artistic expression but also engages the community, making the arts more accessible to all.

FLOOR PLAN

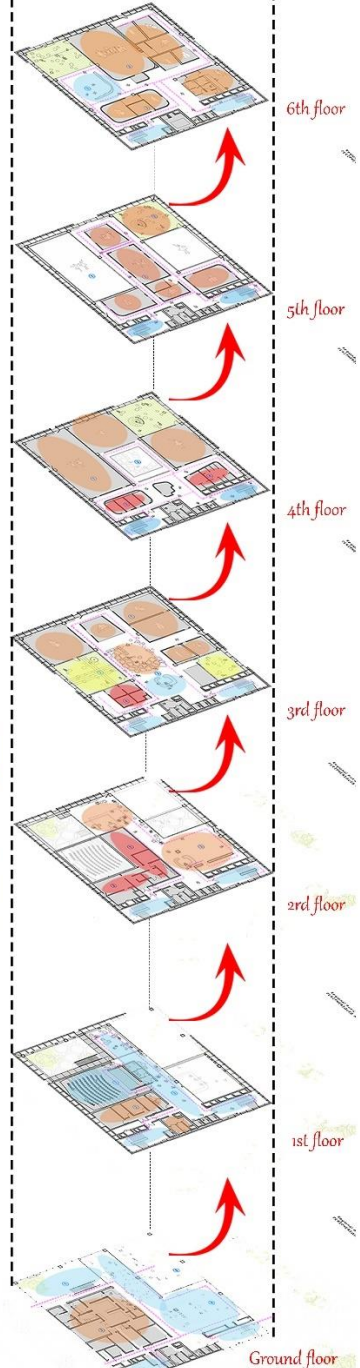


Figure 5 - Case study

Inference:

✚ The building incorporates energy-efficient systems, green roofs, and rainwater harvesting. Large windows maximize natural light, reducing the need for artificial lighting during the day.

✚ The architects worked closely with acoustic engineers to ensure optimal sound quality in performance spaces. Cutting-edge technology and carefully chosen materials contribute to a superior acoustic environment.

✚ The Regional Music and Dance School has become a cultural hub, attracting students and artists from across the region. Its architecture not only facilitates artistic expression but also engages the community, making the arts more accessible to all.

2.1.2 Royal College of Music.



Figure 6– Royal college of Music.

Project: The Royal College of Music (RCM) stands as a testament to architectural excellence, harmoniously blending tradition with innovation. Nestled in the heart of a historic city, the RCM is a beacon of musical education, offering a transformative space for students and faculty.

Design Concept: The Royal College of Music's recently constructed campus, which combines new and ancient structures in a complicated inner-city setting with important cultural heritage buildings that must be maintained, has produced architecture with a distinct and powerful personality. Along with being a part of historic history, the abandoned stable courtyard offers a private yet fully accessible public area that may be enjoyed by bypasses, instructors, and students alike.

Plan:

ENTRANCE FLOOR

1. ENTRANCE HALL
2. THE ROYAL CONCERT HALL
3. THE NATHAN MILSTEIN HALL
4. THE SMALL HALL, UPPER PART
5. THE STABLE / LIBRARY
6. RESTAURANT
7. SERVICE CENTRE
8. LOADING
9. ENSEMBLE ROOM
10. SEMINAR ROOM
11. PERCUSSION ROOM, UPPER PART
12. RECORDING STUDIO, UPPER PART
13. FOYER TO THE NATHAN MILSTEIN HALL AND THE SMALL HALL, UPPER PART
14. LIGHT COURT
15. RESTAURANT KITCHEN
16. BLACK BOX, UPPER PART
17. STUDENT CANTEEN, UPPER PART
18. TEACHING ROOM, LARGE
19. TEACHING ROOM, SMALL
20. EXERCISE ROOM
21. REHEARSAL ROOM
22. YELLOW VILLA, PART OF THE CULTURAL HERITAGE, NOT PART OF THE PROJECT
23. THE RIDING HALL, PART OF THE CULTURAL HERITAGE, NOT PART OF THE PROJECT



Figure 7– Entrance Floor plan Royal college of Music.

FLOOR 4

1. ENTRANCE HALL, UPPER PART
2. THE ROYAL CONCERT HALL, UPPER PART
3. LIGHT COURT
4. TEACHING ROOM, LARGE
5. REHEARSAL ROOM
6. CLASS ROOM
7. STUDENT CANTEEN
8. CHOIR HALL



Figure 8– Entrance Floor plan Royal college of Music.

LITERATURE STUDY

03



CASE STUDY - 02 ROYAL COLLEGE OF MUSIC

PROJECT:
The Royal College of Music (RCM) stands as a testament to architectural excellence, harmoniously blending tradition with innovation. Nestled in the heart of a historic city, the RCM is a beacon of musical education, offering a transformative space for students and faculty.

Area: 21000 m²

LOCATION:



Location: Stockholm, Sweden 59.34376 18.08120



The location provides easy access for students and faculty while integrating seamlessly with the surrounding urban context.

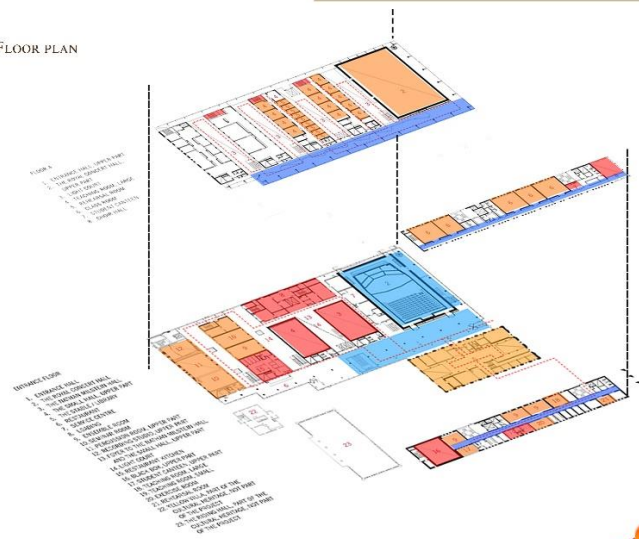
DESIGN CONCEPT:



The Royal College of Music's recently constructed campus, which combines new and ancient structures in a complicated inner-city setting with important cultural heritage buildings that must be maintained, has produced architecture with a distinct and powerful personality. Along with being a part of historic history, the abandoned stable courtyard offers a private yet fully accessible public area that may be enjoyed by bystanders, instructors, and students alike.



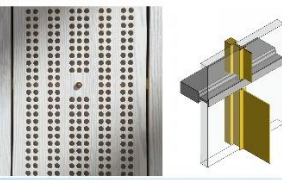
FLOOR PLAN



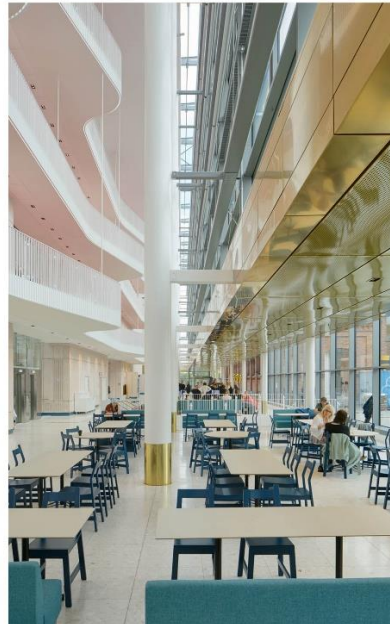
ACOUSTIC DETAIL:



MATERIAL & ACOUSTIC:



The entrance hall in the main building is the "heart of the school" where all the movements, communications and entrances to the halls are gathered. The restaurant here is also open for all.



INFERENCE:

The design incorporates acoustically optimized spaces that cater to a range of performances. From the intimate recital hall to the grand symphony hall, each space is meticulously crafted to deliver an unparalleled auditory experience. Sustainability is a key focus, with green roofs and courtyards strategically incorporated into the design. These areas not only contribute to energy efficiency but also provide serene spaces for relaxation and contemplation. Open spaces, a public performance plaza, and interactive exhibits invite the public to engage with the institution. Outreach programs and collaborations with local artists strengthen the ties between the RCM and the broader community. Energy-efficient lighting, rainwater harvesting systems, and a comprehensive waste management strategy contribute to the building's eco-friendly profile. The institution aims to be a model of environmental responsibility in the realm of cultural and educational facilities.

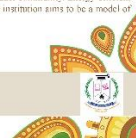


Figure 9 - Case study

Inference:

The design incorporates acoustically optimized spaces that cater to a range of performances. From the intimate recital hall to the grand symphony hall, each space is meticulously crafted to deliver an unparalleled auditory experience. Sustainability is a key focus, with green roofs and courtyards strategically incorporated into the design. These areas not only contribute to energy efficiency but also provide serene spaces for relaxation and contemplation. Open spaces, a public performance plaza, and interactive exhibits invite the public to engage with the institution. Outreach programs and collaborations with local artists strengthen the ties between the RCM and the broader community. Energy-efficient lighting, rainwater harvesting systems, and a comprehensive waste management strategy contribute to the building's eco-friendly profile. The institution aims to be a model of environmental responsibility in the realm of cultural and educational facilities.

2.1.3 Stanton Williams Royal Opera House.



Figure 10- Opera House

Project Vision: To create a world-class second theatre alongside the historic auditorium for the Royal Opera and Royal Ballet; to build new facilities and spaces to enhance the experience for audiences in both theatres; and to invite a new daytime audience to connect with the extraordinary worlds of ballet and opera, often for the first time. The Royal Opera House building should be a place to see the extraordinary forces at work behind the scenes at all times of the day; a place to relax and have a coffee, lunch or drink in the midst of one of the world's most beautiful opera houses; a place to see artists at work; and a place to showcase its guiding principles of excellence, theatricality and curiosity.

Project Concept: The design represents a physical manifestation of cultural change at the Royal Opera House. Seen as an inclusive and multifaceted cultural and social hub, the new ground-floor public areas are expanded, providing a cafe, new shops, and informal event and exhibition spaces. In addition, there is a renovated entrance from the Covent Garden Piazza and a new glazed entrance pavilion on Bow Street.

At the lower level are the new Linbury Theatre and associated foyer, as well as learning spaces and new female toilets. A new restaurant, bar, and terrace at the Amphitheatre level give visitors spectacular views over Covent Garden. Stanton Williams developed the designs with the Royal Opera House via sketches, physical models, and visualizations.

Improved foyer facilities include a larger shop (designed by Drinkall Dean) and a new café, with greater legibility achieved by opening up views through space where possible. Relocation of the main staircase enables greater public use of the upper floors throughout the day.

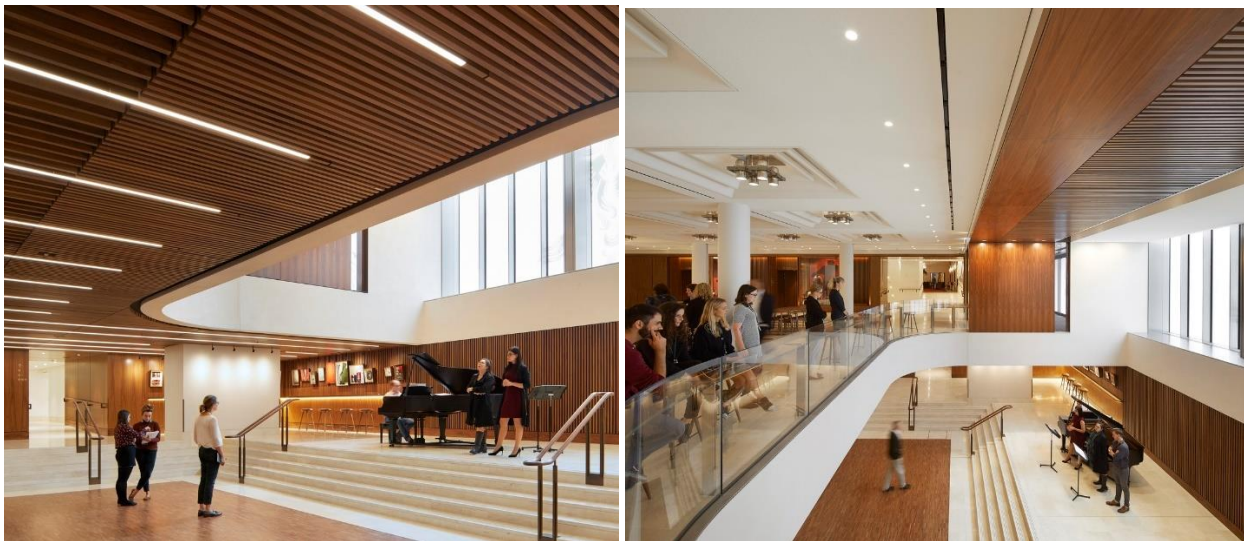


Figure 11 - Material finishes of opera house

The Amphitheatre Terrace has been partially enclosed with new sliding glazing and roof lights to form a new glass conservatory usable all year round.

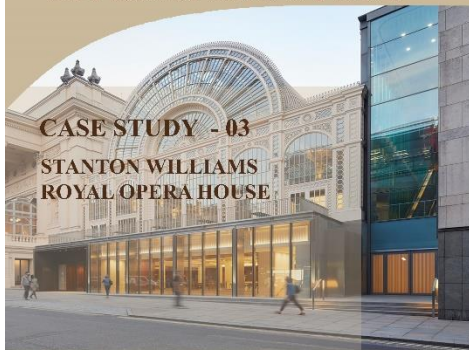
As well as providing views of the piazza, the terrace now offers tantalising glimpses into a number of back-of-house areas including the costume department to a wider public.

Inference:

The building has renovated for royal opera house and it is fully functional for the public use and it has performance hall for the music performers of artists.

LITERATURE STUDY

04



CASE STUDY - 03 STANTON WILLIAMS ROYAL OPERA HOUSE

PROJECT VISION:

To create a world-class second theatre along side the historic auditorium for the Royal Opera and Royal Ballet; to build new facilities and spaces to enhance the experience for audiences in both theatres, and to invite a new daytime audience to connect with the extraordinary worlds of ballet and opera, often for the first time. The Royal Opera House building should be a place to see the extraordinary scenes at work behind the scenes at all times of the day; a place to relax and have a coffee, lunch or drink in the midst of one of the world's most beautiful opera houses, a place to see artists at work, and a place to showcase its guiding principles of excellence, theatricality and curiosity.

LOCATION:

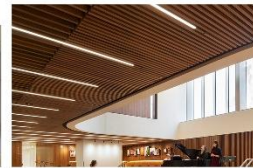


UNITED KINGDOM - LONDON
51.5129, -0.1218



PROJECT CONCEPT :

The design represents a physical manifestation of cultural change at the Royal Opera House. Seen as an inclusive and multifaceted cultural and social hub, the new ground-floor public areas are expanded, providing a cafe, new shops, and informal event and exhibition spaces. In addition, there is a renewed entrance from the Covent Garden Piazza and a new glazed entrance pavilion on Bow Street. At the lower level are the new Linbury Theatre and associated foyer, as well as learning spaces and new female toilets. A new restaurant, bar, and terrace at the amphitheatre level give visitors spectacular views over Covent Garden. Stanton Williams developed the designs with the Royal Opera House via sketches, physical models, and visualisations.



FLOOR PLAN

Library Theater Level

Amphitheater Level

Paul Hamlyn Hall Level

Ground Level

Lower Ground Level

Improved foyer facilities include a larger shop (designed by Drinkall Dean) and a new cafe, with greater legibility achieved by opening up views through space where possible. Relocation of the main staircase enables greater public use of the upper floors throughout the day.



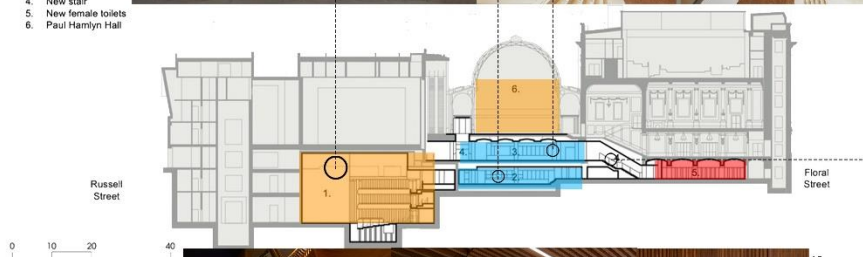
The Amphitheatre Terrace has been partially enclosed with new sliding glazing and roof lights to form a new glass conservatory usable all year round. As well as providing views of the piazza, the terrace now offers tantalising glimpses into a number of back-of-house areas including the costume department in a wider public.



The new Linbury Theatre This replacement of the existing 'auditorium' theatre delivers improved comfort, character, accessibility and technical performance whilst maintaining the intimacy of a 400-seat auditorium. Finely crafted in American black walnut with upholstered seating throughout, the state-of-the-art facility is fitted with adjustable seating configurations and electroacoustic technology.

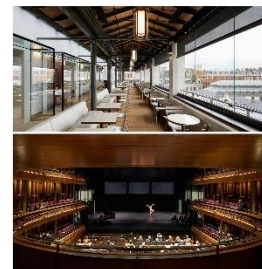
Section 1:1000

1. Linbury Theatre
2. Linbury foyer
3. Main foyer
4. New stairs
5. New female toilets
6. Paul Hamlyn Hall



MATERIAL FINISHES

New foyers The redesigned Bow Street and piazza entrances are linked by an expanded foyer that flows through the ground floor and down to a new, lower ground floor foyer for the Linbury Theatre. These foyer levels are connected by a double-height space that can be used for impromptu events and performances. Stanton Williams achieved a significant increase in foyer space by redistributing the cloakroom and women's toilets within the ROH and rethinking how the box office operates.



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Figure 12 - Case study

2.1.4 Tohogakuen School Of Music / Nikken Sekkei.



Figure 13 - Tohogakuen School Of Music

Project: Through exploration of creating an appropriate place for learning music, apart from the old one-side corridor compartment style lesson rooms, similar to a prison house, new arrangements of lesson rooms has been developed in which it's not a typical campus style, nor dispersive location of schools. It has a look of a city observed in Quartier Latin.

Project Concept: They value eye contact during musical training. To accommodate different acoustic needs, students often choose corridors or staircases over isolated lesson rooms. Lesson rooms and corridors are used together for musical training, ensuring acoustic independence. Opening up the traditionally isolated musical college to its surroundings is seen as a way to bring liveliness and foster unity among students.

Design Features: The wall girder grids installed in the basement and on the second floor, will afford the acoustic independency by arranging lesson rooms discretely. It will also treat the lesson rooms and corridors equivalently by regarding the rest of the spaces as corridors. In addition, the openings at the corner of the lesson rooms contribute in creating continuous scenery unified with corridors visually as well as maintaining acoustic independency. A musical college deigned to contribute a favorable environment to the local community has been explored. Opening the ground level to the public by considering the upper and lower grid-like structures as roof and foundation is one of those efforts.

LITERATURE STUDY

05

CASE STUDY -04

Tohogakuen School of Music / Nikken Sekkei

PROJECT :

Through exploration of creating an appropriate place for learning music, apart from the old one-side corridor compartment style lesson rooms, similar to a prison house, new arrangements of lesson rooms has been developed in which it's not a typical campus style, nor dispersive location of schools. It has a look of a city observed in Quarter 1 area.

LOCATION :



CHOFU, JAPAN



PROJECT CONCEPT:

They value eye contact during musical training. To accommodate different acoustic needs, students often choose corridors or staircases over isolated lesson rooms. Lesson rooms and corridors are used together for musical training, ensuring acoustic independence. Opening up the traditionally isolated musical college to its surroundings is seen as a way to bring liveliness and foster unity among students.

SECTION:



The deep plan is broken up using courtyards to naturally light and ventilate more areas. Windows are carefully placed to give glimpses out as the visitor moves about the school, which in itself is a magical experience, combining joyous sounds, light and views. There is an extraordinary richness to this scheme.

MATERIAL FINISHES:

Materially concrete seems a natural choice, acoustic absorption panels line the ceilings and the walls have an ingenious timber cladding system that traps sound within the practice rooms.

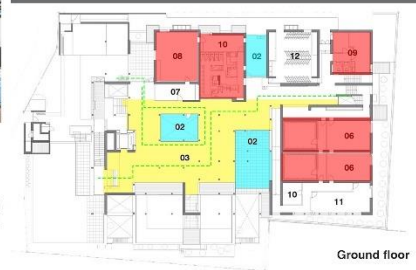


DESIGN FEATURES :

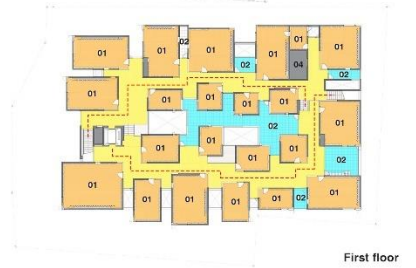
The wall grid-like installed in the basement and on the second floor, will add the acoustic independency by arranging lesson rooms discretely. It will also treat the lesson rooms and corridors equivalently by regarding the rest of the spaces as overture. In addition, the openings at the corner of the lesson rooms contribute in creating continuous scenery unified with corridors visually as well as maintaining acoustic independency. A musical college designed to contribute a favorable environment to the local community has been explored. Opening the ground level to the public by considering the upper and lower grid-like structures as roof and foundation is one of those efforts.



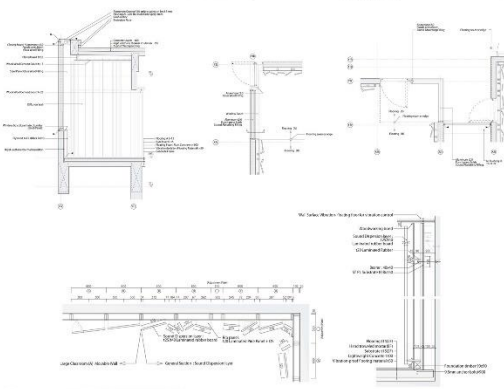
01 Lesson Room
02 Light Court
03 Foyer
04 Machine Room
05 Control Room
06 Staff Room
07 Information
08 Office
09 Dispensary
10 Meeting Room
11 PC Room
12 Bicycle Parking



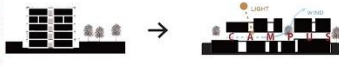
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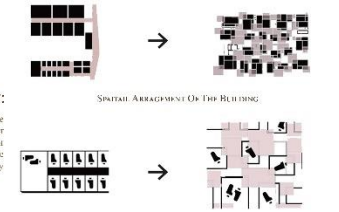
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CROSS VENTILATION OF THE BUILDING



SPATIAL ARRANGEMENT OF THE BUILDING



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Figure 14 - Case study

Inference:

The campus is designed for the performing institute and its concept of planning is effective for the user.

2.1.5 Kalakshetra Foundation.



Figure 15 – Kalakshetra

Project: Kalakshetra Institute, established in 1936, is a renowned cultural and arts institution based in Chennai, India. Dedicated to preserving and promoting traditional Indian art forms, the institute offers training in dance, music, visual arts, and other cultural disciplines. With a legacy rooted in the vision of its founder, Rukmini Devi Arundale, the institute plays a pivotal role in nurturing artistic talent and fostering cultural exchange.

Design Features: Blocks are arranged radially according to the focal point of elements trees or sculptures etc. The small sculptures like horses, elephants zoned in various spaces inviting the personalized feeling of art. The campus is lined up of huge number of trees acts as a sound buffer which serves as a quiet environment. The classrooms, Auditorium and the prayer hall are spread in central part, while the administrative parts, dining hall and school covers the outer region. The Padma pushkarini a small water body of stones mandapas makes the ambience pleasant. The

classrooms are all single roomed individual cottages like structure with separate plinth and sloping tile roof which shows the traditional gurukul am spaces. All classrooms in the campus are single roomed open cottage with individual plinth, sloping roof and small veranda. They are roughly of two sizes (8m x 4.5m and 10m x 7.5m). The bigger one is usually used for dance.

Services:

- ✚ There are 7 security cabins in the campus.
- ✚ A proper signages are provided for visitors throughout the campus.
- ✚ There are 2 overhead tanks of capacity 25000 liters each.
- ✚ Electric LT lines runs throughout the campus.
- ✚ Fire extinguishers are provided in spaces like Auditorium, Offices etc.
- ✚ Parking is split into two, one near the entrance and other near Baratha Kalakshetra auditorium.

Rukmini Arangam:

Originally build as an open-air theatre designed by architect Peterson, it served as an assembly hall and performance stage for many years until it was destroyed during a cyclone. Architect Lurie baker Designed a proper theatre after cyclone. Measuring 70' x 80', the open-air space can accommodate 300-350 audience. Dressing room are available on either side of the stage. Each measuring 10' x 12'.

Bharata Kalakshetra Auditorium:

Measuring 40'x40' the auditorium can seat 750-800. There are 428 chairs on the peripheral veranda and 104 in galleries in the balcony. Dressing room are available for the artists, on the ground floor. This auditorium is equipped with state-of-the-art lighting system.

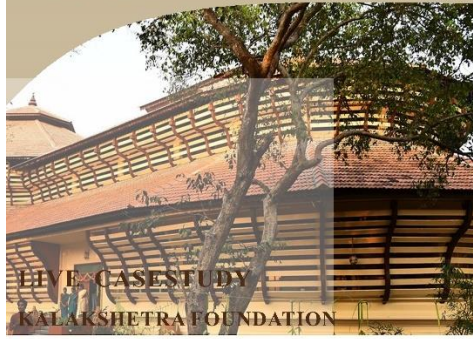


Figure 16 - Rukminii Arangam

Inference: The campus is designed for the performing institute and its concept of planning is effective for the user. The site is fully compact with green trees; it will be eco-friendly and sound buffer from one studio to others. The materials used in the building are full of natural stone, wooden logs.

LIVE CASESTUDY

06



LIVE CASESTUDY KALAKSHETRA FOUNDATION

Kalakshetra made of words kala + shetra means a
"Devotional centre for arts".

ATM:

- *Training students in the field of music and various fine arts
- *Promoting general education with influence of art and culture
- *Education of public through concerts, public lectures, exhibition and publication

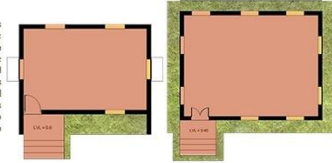
DESIGN FEATURES:

Blocks are arranged radially according to the focal point of elements trees or sculptures etc. The small sculptures like horses, elephants, zoned in various spaces inviting the personalized feeling of art. The campus is lined up of huge number of trees acts as a sound buffer which serves as a quiet environment. The classrooms, Auditoriums and the prayer hall are spread in central part, while the administrative parts, dining hall and school covers the outer region. The Padma pushkarini, a small water body of stored rainwater makes the audience pleasant. The classrooms are all single roomed individual cottages like structure with separate plinth and sloping tile roof which shows the traditional gambhara spaces. All classrooms in the campus are single roomed open cottage with individual plinth, sloping roof and small veranda. They are roughly of two sizes (8m x 4.5m and 10m x 7.5m). The bigger one is usually used for dance.

Music - Percussion - Mirthangam
Instrument - Violin, Veena, Flute
Dance - Bharatanatyam and Kathakali
Visual arts - Painting, sculptures, Photography

SERVICES:

- *There are 7 security cabins in the campus.
- *A proper stages are provided for visitors throughout the campus.
- *There are 2 overhead tanks of capacity 25000 litres each.
- *Generic L.T lines runs throughout the campus.
- *Fire extinguishers are provided in spaces like Auditorium, Offices etc.
- *Parking is split into two, one near the entrance and other near Bharata Kalakshetra auditorium.



- SCHOOL ZONE
- PUBLIC ZONE
- SEMI-PUBLIC ZONE
- PRIVATE ZONE



BIHARATA KALAKSHETRA AUDITORIUM:

Measuring 40' x 80' the auditorium can seat 750-800. There are 428 chairs on the peripheral veranda and 104 in galleries in the balcony. Dressing room are available for the artists, on the ground floor. These auditorium is equipped with state of the art lighting system.



RUKMINI ARANGAM:

Originally built as an open air theatre designed by architect Peterson. It served as an assembly hall and performance stage for many years until it was destroyed during a cyclone. Architect Lurie Baker designed a proper theatre after cyclone. Measuring 70' x 80', the open air space can accommodate 300-350 audience. Dressing room are available on either side of the stage. Each measuring 10' x 12'.



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Figure 17 - Case study

2.1.6 COMPARATIVE ANALYSIS:

COMPARATIVE ANALYSIS

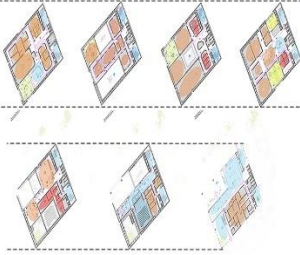
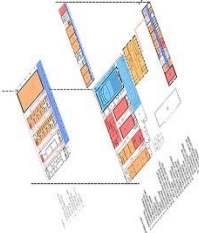
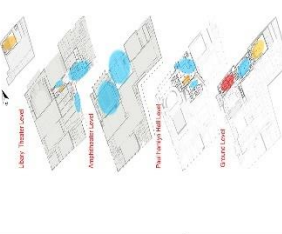
S.NO	PARAMETERS	REGIONAL MUSIC AND DANCE SCHOOL OF SAINT PAUL	ROYAL COLLEGE OF MUSIC ARCHITEKTER	ROYAL OPERA HOUSE STANTON WILLIAMS	TOHOGAKUEN SCHOOL OF MUSIC NIKKEN SEKKEI	KALAKSHETRA
1	Location /Area	SAINT PAUL, REUNION /4567 M²	STOCKHOLM, SWEDEN /21000 M²	LONDON, UNITED KINGDOM / N/A	CHOFU, JAPAN /1943 M²	THIRUVANMIYUR , CHENNAI / 400683 M²
2	Project concept	The building measures 34m in length and 32m in height. Its facade is an aesthetic code related to the universe of books and knowledge. It creates the effect of an unequal book pile. These are, in fact, wavy louvers laid out on the periphery of the building.	Architectural themes have been the notions of music, dance, rhythm and public programming of cultural change at the Royal Opera House, of materials.	The design represents a physical manifestation of cultural change at the Royal Opera House.	Opening up the traditionally isolated musical college to its surroundings is seen as a way to bring liveliness and foster unity among students.	Blocks are arranged radially according to the focal point of elements like trees or sculptures etc. The small sculptures like horses, elephants are placed in various spaces inviting the personalized feeling of art. The campus is lined up of huge number of trees acts as a sound buffer which serves as a quiet environment
3	Program of building	The place is transformed to become multi-functional with a diversity of spaces (drums room, dance studio, co-working space, orchestra room).	The entrance hall in the main building is the "heart of the school" where all the movements, communications and entrances to the halls are gathered. The restaurant is also open for all.	Multifaceted cultural and social hub, the new ground floor public areas are expanded, providing a café, new shops, and informal event/exhibition spaces.	A musical college designed to contribute a favorable environment to the local community has been explored.	The institute offers training in dance, music, visual arts, and other cultural disciplines.
4	Zoning	Vertical zoning (ground & 1st floor will be public zone, semi-public for staff, Private-studios)	Vertical zoning (ground floor has public zone & 1st to 4th is semi public for studies)	Vertical zoning (basement, 1st, 2nd floor is public zone, library theater level will be semi-public)	Vertical zoning (ground level will be public zone and basement & first private space)	
5	Circulation					
6	Façade view					
7	façade material	Aluminium Profile panels	Glass glazing and gold-shimmering brass	Glass glazing	Exposed Concrete Finishes	Wooden works & paint finishes
8	Structural system	framed structure	framed structure	framed structure	framed structure	framed structure
9	Thermal comfort Features	Green zone are placed in every floor. It reduces the heat and brings cool air inside the building. The Aluminium façade reflects the direct heat into the building.	The gold-shimmering brass are used as diffuser of direct sun light into the building. Its also has HAVC system for control the thermal comfort of the building	HAVC system for control the thermal comfort of the building	The deep plan is broken up using courtyards to naturally light and ventilate more areas.	The campus is lined up of huge number of trees acts as a sound buffer which serves as a quiet environment.
10	Standard Area	N/A	N/A	N/A	N/A	Avangam - 560bsq.ft (no of ppl 300-350) @ 1.2 per person. Auditorium - 160bsq.ft (no of ppl 100-800)/Studios - 800 sq.ft
11	Inference	The building incorporates energy-efficient systems, green roofs, and rainwater harvesting. Large windows maximize natural light, reducing the need for artificial lighting during the day. The architects worked closely with acoustic engineers to ensure optimal sound quality in performance spaces.	Sustainability is a key focus, with green roofs and courtyards strategically incorporated into the design. These areas not only contribute to energy efficiency but also provide serene spaces for relaxation and social interaction. The building's public plaza, and interactive exhibits invite the public to engage with the institution.	The building has renovated for royal opera house and it is full functional for the public use and it has performance hall for the musicians, performers of artists.	The campus if designed for the performing institute and its concept of planning is effective for the user.	The campus if designed for the performing institute and its concept of planning is effective for the user.

Figure 18 - Comparative Analysis

CHAPTER 3

3.1 Standards and Norms:

-  **Approach to plinth level:** The plinth or any part of the building or out house shall be so located with respect to the surrounding ground level that adequate drainage of the site is assured. The height of the plane shall not be less than 450 mm from the surrounding ground level in case of independent houses are not less than 300 mm in case of other buildings.
-  **Interior Courtyards and Covered Parking:** Every interior courtyard shall be raised with at least 150 mm above from the determined ground level and shall be satisfactorily drained.
-  **Ramped Approach:** Ramp shall be finished with non-slip material to enter the building. Minimum width of the ramp shall be 1800 mm with the maximum gradient 1:12. Length of the ramp shall not exceed 9 m having 800 mm height handrail on both sides, extending 300 mm beyond top and bottom of the ramp. Minimum gap from the adjacent wall to the hand rail shall be 50 mm.
-  **Stepped Approach:** For step approach size of the thread shall not be less than 300 mm and maximum riser shall be 150 mm. Provision of 800 mm hand on both sides of the step approach, similar to the ramp approach.
-  **Exit/ Entrance Door:** Minimum and clear opening of the entrance door shall be 900 mm and it shall not be provided with a step that obstruct the passage of a wheelchair user. Threshold shall not be raised more than 12mm.
-  **Entrance Landing:** Entrance landing shall be provided adjacent to ramp with the minimum dimension 1800mm x 2000mm. The entrance landing that adjoins the top end of a slope shall be provided with floor materials to attract the attention of visually impaired person's (limited to coloured floor material whose colour and brightness is conspicuously different from that of the surrounding floor material or the material that emits different sound to guide visually impaired persons. Finishes shall have a non-slip surface with a texture traversable by a wheel chair. Kerbs wherever provided should blend to a common level.

Corridor connecting the entrance/exit for the differently abled: The corridor connecting the entrance/exit for differently abled leading directly outdoors to a place where information concerning the overall use of the specified building can be provided to visually impaired persons either by a person or by signs, shall be provided as follows:

- Guiding floor materials shall be provided or device that emits sound to guide visually impaired persons.
- The minimum width shall be 1500mm.
- In case there is a difference of level, slope ways shall be provided with a slope of 1:12.
- Handrails shall be provided for ramps/slope ways.

Stair-ways: One of the stair-ways- near the entrance/exit for the differently abled shall have the following provisions:

- The minimum width shall be 1350 mm.
- Height of the riser shall not be more than 150 mm and width of the tread 300mm.
- The steps shall not have abrupt (square) nosing.
- Maximum number of risers on a flight shall be limited to 12.
- Handrails shall be provided on both sides and shall extend 300 mm on the top and bottom of each flight of steps.

37. Planning Parameters of Institutional Buildings — Including nursery schools, Primary schools and religious buildings with floor area exceeding 300 sq.m. Secondary schools, Colleges, Higher Educational, Technical & Research Institutions, Students hostels & Dormitories, Research Institutions, Broadcasting, Telecasting & Telecommunication centers, Government & Quasi Government Offices, and Institutions, Government Archives, Museums, Art galleries and Public libraries, Foreign Missions, Consulates and Embassies.

Sl.No.	Description	Continuous Building Areas	Other areas
1	2	3	4
A.	Minimum road width	7.20m	Minimum 7.2m for schools upto higher secondary level and industrial training institutes. For others, min. 9 m
B.	Maximum Height	18.30m.	
C.	Maximum FSI	2.0	
D.	Minimum Setbacks	Where Street Alignment/new road is prescribed, it shall be from that street alignment/narrow line. In the case of others, it shall be from the property boundary.	
(i)	Front Setback	6m	6m
(ii)	Side Setback	Nil For schools - 2m	6m
(iii)	Rear Setback	Nil For schools - 2m	6m
E.	a) Structures permissible in the minimum prescribed Front set back, Side setback and Rear set back are given in the rule 28 b) In addition, Gate pillars, gopurams, and incidental structures (with height not exceeding 4m) such as servant room, cloak room, and watch man booth, cycle stand, Kitchen and toilets are permissible in these minimum prescribed setback spaces.		
F.	Parking spaces shall be provided within the site conforming to standards prescribed in the Annexure - IV.		
G.	Rainwater harvesting provisions as prescribed in the Annexure - XXII.		
H.	The minimum width of corridor shall be as given in rule 42		
I.	Special regulations for physically disabled stated in the rule 43 shall be adhered to.		

42. Corridor / Verandah Width.— The minimum width of corridor or verandah within buildings shall be as given below.

Sl. No.	Building use or type	Minimum width of corridor or verandah
(i)	Residential buildings	1.0 m
(ii)	Assembly buildings such as Auditoriums, Kalyanamandapams, cinema theatres, Religious buildings, temples, mosques or churches and other buildings of public assembly	2.0 m
(iii)	Institutional buildings	
a)	Government offices	2.0 m
b)	Hospitals	2.4 m
c)	Educational Buildings such a schools, colleges, Research Institutions	2.0 m
d)	Commercial buildings such as private offices, Nursing Homes, etc.	2.0 m
e)	All other buildings including hotels	1.5m

Figure 19 - Planning Parameters of institutional building

(A) Stall Size:

The dimension of the parking stall for different kind of vehicles shall be:

Vehicle Type	Breadth (m)	Length (m)
Car	2.5	5.0
Two Wheelers	1.0	1.8
LCV	3.5	7.0
Lorry/Bus	3.5	10.0
Articulated Vehicles [Container Vehicles]	3.5	16.0

The stall dimensions mentioned above shall be clear of any structural members. Where a stall is adjacent to a large element such as a wall, minimum stall width shall be 2.7m for parallel parking and where cars cannot be parked by reversing, minimum stall length shall be 7.2m.

(B) Parking for Special (physically challenged) persons

For Buildings having more than 2 floors 10% of the required car/two wheelers parking spaces subject to minimum of 2 car spaces and 2 two-wheeler spaces shall be reserved for the physically handicapped persons near the entrance. This is to provide an exclusive reservation of car parking for physically handicapped and also to provide them easy access to the lift and staircase.

Figure 20 - Car Parking standards (TNCDBR 2019)

5.5.3 Socio-cultural facilities	
	Land Area Required, Min
1) Community room (1 for every 5 000 population) Area	750 m ²
2) Community hall, mangal karyayala/kalyana mandapam/barat ghar/library (1 for every 15 000 population) Area	2 000 m ²
3) Recreational club (1 for every 100 000 population) (see also 5.2, 5.2.1, 5.2.2 and 5.3) Area	10 000 m ²
4) Music, dance and drama centre (1 for every 100 000 population) Area	1 000 m ²
5) Meditation and spiritual centre (1 for every 100 000 population) Area	5 000 m ²
6) Socio-cultural centre (1 for every 1 000 000 population) Area	15 ha

D-3.7 Sanitary Facilities

It is essential that sanitary facilities, in accordance with the nature and use of a specific building or facility, be made accessible to, usable by, the physically challenged.

D-3.7.1 sanitary facilities shall have space to allow traffic of individuals in wheelchairs (see fig.17 and 18).

Figure 21 - Sanitary Facilities

CHAPTER 4

SITE STUDY AND ANALYSIS

4.1 About the Site:

The Tamil Nadu government has passed a bill to set up a performing arts and fine arts college in Chennai, which is within around 100 km, since the site is not located by the government body and also because there are compacted building blocks. So, I have suggested these Semmancheri sites for performing art institute.

The site location is easily accessible from the OMR major road, and it is bordered by the developing parts of Chennai, Semmancheri and Navalur Sipcot, which are residential regions and IT corridors.

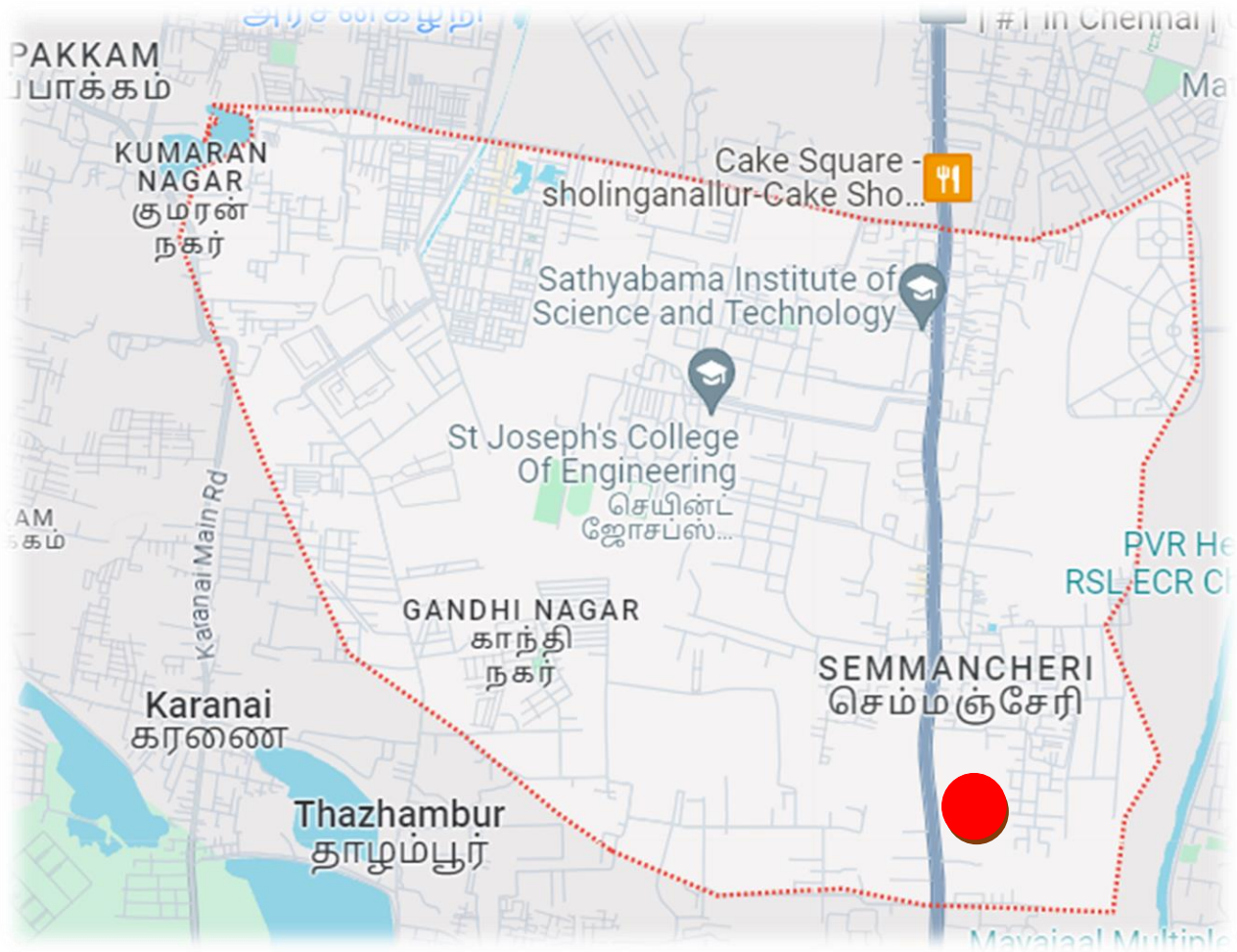


Figure 23 - Site Location, Semmancheri.

SITE - SEMMANCHERI

WHY THE SITE AT SEMMANCHERI:

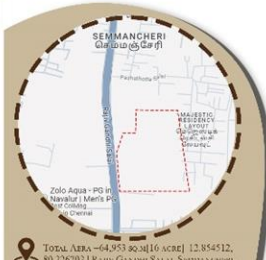
The Tamil Nadu government has passed a bill to set up a performing arts and fine arts college in Chennai, which is within around 100 km, since the site is not located by the government body and also because there are compacted building blocks. So I have suggested these semmarchi sites for performing art institute.

The site location is easily accessible from the OMR major road, and it is bordered by the developing parts of Chennai. Semmarchi and Navalur Sipco, which are residential regions and IT corridors.

THE TAMIL NADU GOVT INTRODUCES BILL TO SET UP MUSIC AND FINE ARTS UNIVERSITY

The Tamil Nadu government has passed a bill to set up a music and fine arts university in Chennai. The bill is aimed at creating a world-class institution for the study and practice of music and fine arts. The university will be established in the city of Chennai, which is the capital of the state. The bill is expected to be passed by the Tamil Nadu Legislative Assembly in the near future.

Department of Arts and Culture



TOTAL AREA = 64,953.80 SQ. M (16 ACRES) 12.854512, 80.226702 [Rajiv Gandhi Salai, SEMMANCHERI, CHENNAI, 601103]



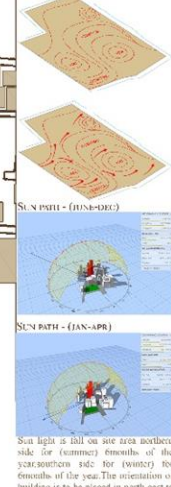
The location is classified as residential on the land use map, with commercial, institutional, or industrial contexts surrounding it. Existing zones can be developed at these locations.



Chennai Airport - 27km (55mins)
AGS Bus Stop - 500m (5mins)
I. peomng IAGS Metro Station - 500m (5mins)

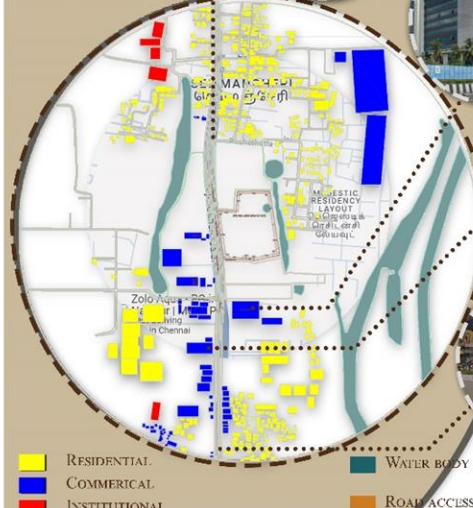


SITE CONTOUR LINE.



Sun light is fall on site area northern side for (summer) months of the year. The orientation of building is to be placed in north-east to south-west direction.

SITE CONTEXT:



ON SITE FEATURES.

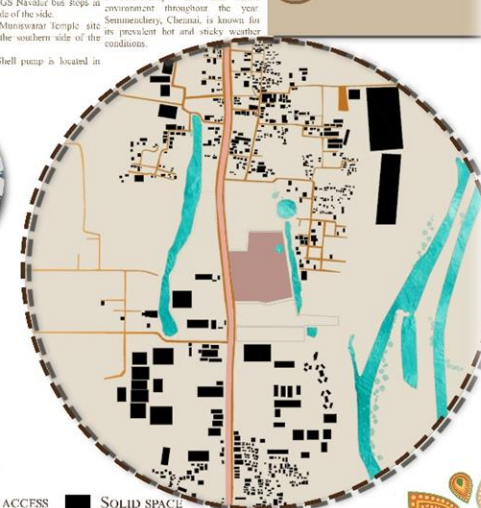
The existing features within the site boundaries are few and there are existing coconut trees and shrubs on-site.

ON SITE FEATURES.

Road: 20 m wide Rajiv Gandhi Salai road in the west and 4 m wide cross road in the South.
Traffic Signal: A traffic signal is present in the 500M towards the direction of the site.
Nearby Development: Ozone Techno Park building, Olympia Upsizing Hospital - Topaz Town, VIVARA MALL (Retail Development).
Bus stop: 1 AGS Navalur bus stop is 500M south side of the site.
Temple: Sri Manasa Temple site boundary on the southern side of the site.
Fuel Station: Shell pump is located in front of site.

CLIMATE.

In Semmarchery, Chennai, the climate is characterized by high temperatures and humidity. The weather in this area tends to be hot, with elevated levels of moisture in the air. Residents experience consistently warm and humid environment throughout the year. Semmarchery, Chennai, is known for its prevalent hot and sticky weather conditions.



RESIDENTIAL COMMERCIAL INSTITUTIONAL WATER BODY VOID SPACE ROAD ACCESS MAIN ROAD ACCESS SOLID SPACE

Figure 24 - Site Analysis.

CHAPTER 5

5.1 Architectural Design: DESIGN CONCEPT

11



Figure 25 - Design Concept

12



5.3 Floor plan Design:

FLOOR PLANS:

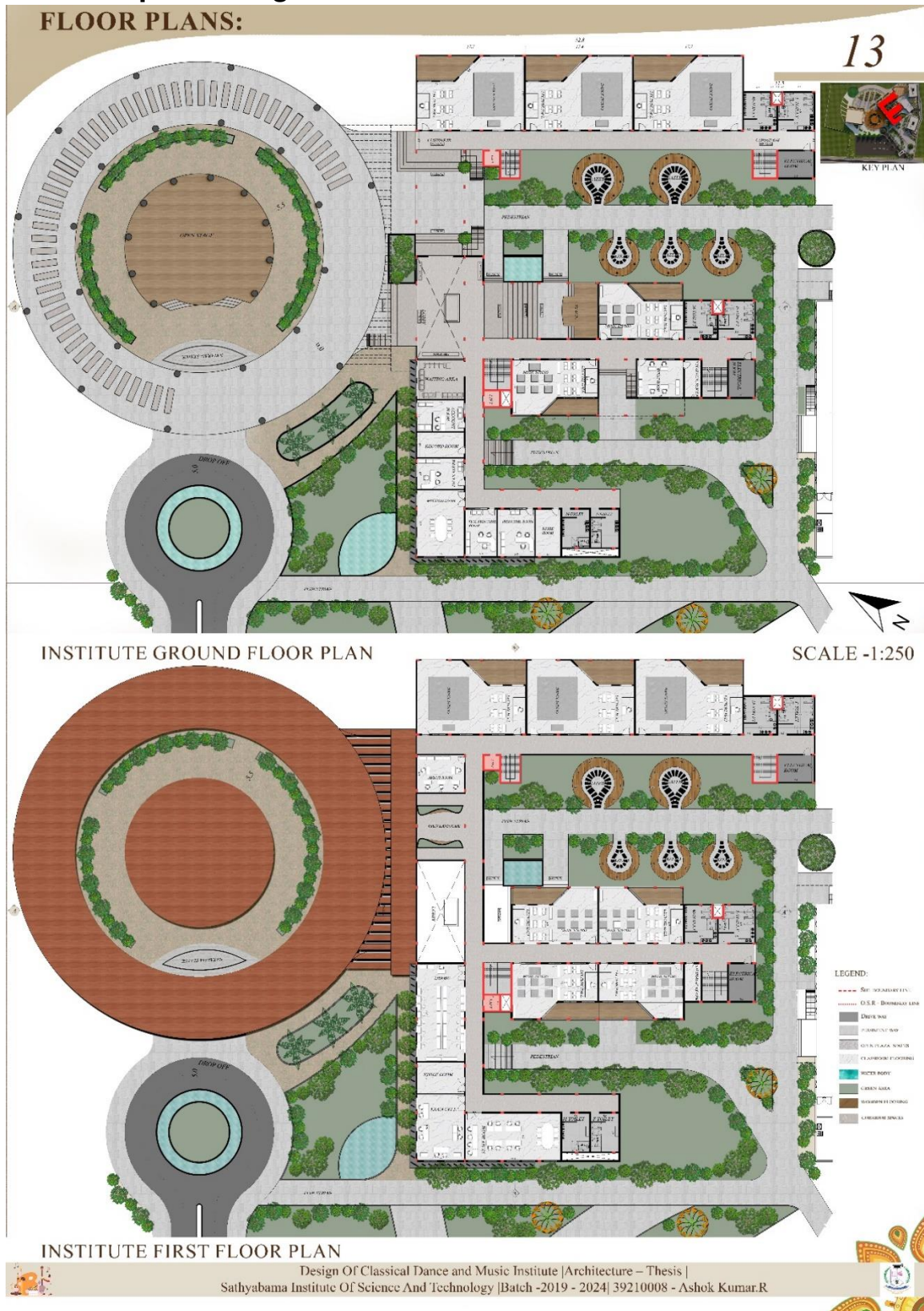


Figure 27 - Floor Plans

5.4 Floor Plan & Section:

FLOOR PLANS:



Figure 28 - Floor plan & section

5.5 Hostel Floor Plan & Section:

FLOOR PLANS:



Figure 29 - Hostel floor plan

5.5 Auditorium Floor Plan & Section:

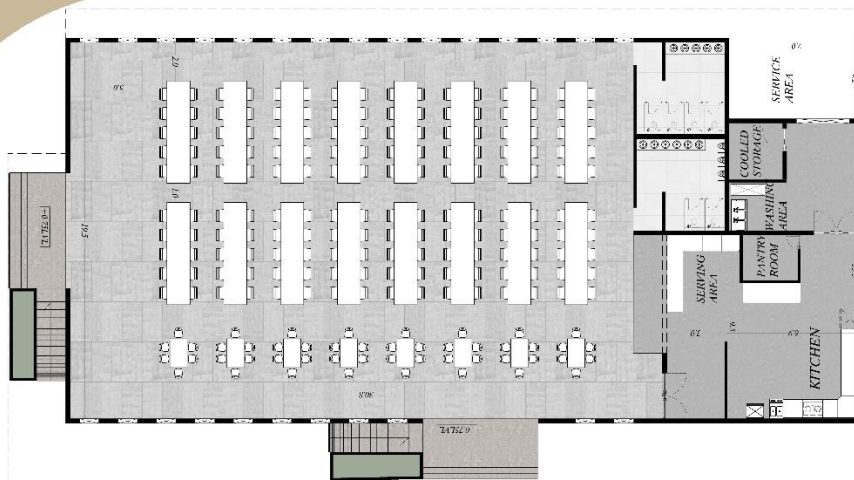
FLOOR PLANS:



Figure 30 - Auditorium Floor Plan

5.6 Canteen Floor Plan:

FLOOR PLANS:



CANTEEN GROUND FLOOR PLAN

SCALE - 1:100



17



Figure 31 - Canteen floor plan & views

5.7 Site Section :



Figure 32 - Site Section