THESIS REPORT

KUCHIPUDI NATYARAMAM

Dance institute and research centre, Kuchipudi village, A.P

KUCHIPUDI NATYARAMAM:

Dance institute and research centre, Kuchipudi village, A.P

Thesis submitted in partial fulfilment of the requirements for

The award of the degree of

BACHELOR OF ARCHITECTURE

By

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DECLARATION BY THE CANDIDATE

I **BHAVANA CHEKKALA**, Scholar No. **2015BARC022** hereby declare that, the thesis titled **KUCHIPUDI NATYARAMAM: Dance institute and research centre, Kuchipudi village, A.P,** submitted by me in partial fulfilment for the award of degree of Bachelor of Architecture at School of Planning and Architecture, Bhopal, India, is a record of bonafide work carried out by me. The design work presented and submitted herewith is my original work and I take sole responsibility for its authenticity. The matter/result embodied in this thesis has not been submitted to any other University or Institute for the award of any degree or diploma.

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CERTIFICATE

This is to certify that the student Ms BHAVANA CHEKKALA Scholar No. **2015BARC022** has worked under my guidance in preparing this thesis titled **KUCHIPUDI NATYARAMAM: Dance institute and research centre, Kuchipudi village, A.P.**

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Thank you for making this happen.

ABSTRACT

A large number of training institutes and performance spaces and Indian classical dance studios are coming up at every nook and corner of the world, but unfortunately because of the pattern of blindly copying, building such spaces is typically achieved by imitating them.

Classical Indian dance like Kuchipudi has clear historical roots in India, and has undergone considerable transformation over time. Contemporary dancers have always turned to the origins for guidance and advancement in their profession. Similarly, architecture has the potential to be more significant, by taking influence from tradition. Both the dancer and the architect control spaces, a dancer through the movement of the body and an architect through the nature of the built forms.

The aim is, therefore, to explore the evolution of Indian classical dance form Kuchipudi over time from the beginning and, at the same time, to explore the vernacular architecture and traditional Indian construction that developed over time to reflect the natural, economic, technical and historical contexts in which it exists.

Purpose is to identify the requirements of Kuchipudi's Present Day performance and pedagogical space and propose a complex design ideology which can stand as a landmark of contemporary culture, yet reflect strongly the roots of its origin.

KEYWORDS

Architecture, Kuchipudi, Indian classical dance, performance spaces, temple dance

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PROJECT BACKGROUND

Kuchipudi, one of India's top ten leading classical dance forms, is a dance-drama performance art that originated at a village in Andhra Pradesh, India's Krishna district. Similar to other leading classical Indian dance forms, Kuchipudi also emerged as a sacred form rooted in the ancient Hindu Sanskrit text 'Natya Shastra' and historically associated with temples, spiritual rituals, and traveling bards.

Kuchipudi village is where the eponymous dance form was born more than six centuries ago. It was created in the 15th century by Siddhendra Yogi, who initiated local boys into Bhama Kalapam, a dramatic dance expression. These artists then formed groups or Bhagavata Melalu and travelled extensively to propagate the spiritual aspect of this dance form.

Historically it is believed that the Sect of Advaita Vedanta sannyasin, Tirtha Narayana Yati, and his disciple Siddhendra Yogi introduced, methodized, and structured the original 17th century version of the dance form.

While earlier generations all around the country, have a strong hold on the traditional roots of their culture and values and later generations have adapted to fit the contemporary culture by which they can grow and interact with each other.
Traditional practices are restricted to four house walls or within religious societies. The same doesn't surpass their own lives. Individuals find it hard to follow the practices covered by extremist religion without any fault of their own.

A dancer requires a space not only for performance but also for research. A research facility to study, to see and improvise dance forms with regional differences in a culturally deep country like India. In India there is a lack of research centers for dance. This led me to take up a project similar to the project for a research center for classical dance set up by eminent dance guru Dr. Padma Subramaniam.

Hence, it was high time that such an initiative was taken up and therefore appropriate sources and access to them should be available which can teach and inform the people. Having a present-day kuchipudi performance space that can stand as a landmark of contemporary culture, yet reflect strongly the roots of its origin, will help to create a suitable environment for Kuchipudi dance form practice and pedagogy.

PROJECT BRIEF AND INTENT

Project Title :

KUCHIPUDI NATYARAMAM : Dance Institute and Research Center, Kuchipudi village, Andhra Pradesh, India.

Project type : Cultural

Proposing Authority : Andhra Pradesh state government (Chairman - Anand Kuchibhotla)

Location:

Looking to revive Kuchipudi (Indian classical dance form), the Andhra Pradesh state government has proposed to build the '**Kuchipudi Natyaramam**' (Kuchipudi dance academy) at **Kuchipudi village in Krishna district in coastal Andhra**, where the dance form was born more than six centuries ago.

Project brief including broad spatial and functional requirements :

"The Mission of the Kuchipudi Natyaramam is to cultivate, promote, foster, and develop among Kuchipudi artistes, students, researchers, critics and the community at large, the appreciation, understanding, taste and love of Kuchipudi dance and it's history."

- Anand Kuchibhotla

The proposed Natyaramam is to have six functional divisions - collection and preservation, research, teaching, publication, recognition of artistes, and exhibition.

A project dealing with the learning and teaching Kuchipudi dance form. The centre is to have a dedicated private zone with :

A. Gurukuls - 150 sqm each
B. Dance temple - 150 sqm
C. Residential block (for gurus and students) - 20 sqm each room
D. Academic block - Dance studios - 120 sqm each
E. photography studios - 60 sqm each
F. Library - 360 sqm
G. Workshops - 300 sqm each

and public zone with :

A. An auditorium - 1000 sqm
B. Open air theatre (like traditional performance spaces) - 800 sqm
C. Galleries - 650 sqm
D. Restaurant - 200 sqm each (75 capacity each)
E. Guesthouses - 50 sqm each room
F. memorabilia store - 50 sqm

The Natyaramam - proposed to be set up on a 100-acre complex - will have world-class “interactive and immersive technologies” so that the tech-savvy youth of today can “play” with the content.
A state-of-the-art movie theatre is also proposed.

This project in other words, can be portrayed as a Center for dance from around the world. It would be a place where knowledge of these great art forms can be exchanged as well as make it available as a Center of connectivity for dancers around the country. Such a dance institute wouldn't be anything less than a sanctuary for performing and learning dance and could be one of the greatest assets for our cultural and heritage oriented village.

Agenda :

A large number of training institutes and performing spaces and dance studios are coming up in every nook and corner of the country, but sadly due to the trend of blindly copying, design of these spaces is done usually by mimicking them.
Hence, the intent is to explore vernacular architecture and traditional Indian construction which evolved over time to reflect the environmental, cultural, technological and historical contexts in which it exists.
Idea is to propose a Present day performance space that needs to stand as a landmark of contemporary culture, yet strongly reflects the roots of its origin.

AIM

Intent of the project research involves understanding the relationship between practice and pedagogy of Kuchipudi dance and architecture, by studying the forms, technology and transformations in the dance form and architecture in parallel and to propose a present day performance space that can stand as a landmark of contemporary culture, yet strongly reflects the roots of its origin.

OBJECTIVES:

1. To look into Kuchipudi dance form evolution.
2. To understand Vernacular or traditional indian construction for kuchipudi dance form that evolved in parallel.
3. To investigate the present day spaces that are available for teaching and performing Kuchipudi dance form.
4. To look into technological advancements in teaching Kuchipudi dance form.
5. To establish how to enhance the present day performance spaces.

LIMITATIONS:

1. The research study involved just the classical dance form based form India, Kuchipudi.
2. From history considering spaces used for temple dance and the teaching spaces. Study does not involve palace dancing.

LITERATURE STUDY

1. History & Evolution of Kuchipudi Dance form

1.1 Timeline (development of Kuchipudi)

1.1.1 Origin - Natyashastra (500 BCE to 500CE)

The dance-drama tradition is of ancient origins in Andhra Pradesh, and the area is mentioned in the Natya Shastra. Bharata Muni credits the Andhra region with an elegant dance, and addresses it a/s Kaishiki vritti.

1.1.2 Bhagavathulu and Bhama kalapam (10th century)

Dance-drama performance arts linked to Shaivism, in Telugu-speaking areas of South India, and these were called Brahmana Melas or Brahma Melas. This practice was possibly embraced by the musical and dancing Bhakti practices of Vaishnavism that developed in the 2nd century, whose devotees were called Bhagvatulus in the Andhra region. His royal sponsorship inspired many poets and dance-drama troops to follow Radha-Krishna themes in the then prevalent variants of classical Kuchipudi. These were originally called Vaishnava *Bhagavatulus*.

BHAMA KALAPAM:

Bhama-Kalapam is a dance drama composed by Siddhendra Yogi. Bhama relates to Satyabhama-one of Lord Krishna 's eight daughters. The tale is about the will of Satyabhama to unite with Krishna. She can not, though, unless she has covetousness, commitment, ambition and lust inside her. In order to reach Krishna she has to give up everything. Metaphorically, it is Jeevatma's narrative, or human being, and Paramatma or the Spiritual. It's about the divine desire to unite with Heaven. And the challenges one needs to tackle to get there

(Fig. 2: Bhamakalapam performance)

1.1.3 Decline of Dance form (16th century)

The area saw wars and political instability in the 16th century, with Islamic invasions and the establishment of Deccan Sultanates. With the collapse of the Vijayanagara Empire and the devastation by the Muslim Army of temples and Deccan cities around 1565, musicians and dance-drama artists moved to the South and the Tanjore Kingdom.

1.1.4 Kuchipudi village Agraharam (17th century)

Kuchipudi declined and became a disappearing art in Andhra in the 17th century, but in 1678 the last Shia Muslim Nawab of Golkonda, Abul Hasan Qutb Shah, saw a production of Kuchipudi and was so pleased that he granted the dancers lands around the village of Kuchipudi with the stipulation that they should resume the dance drama. Aurangzeb outlawed public performances of all music and dance arts, along with ordering the confiscation and destruction of musical instruments in the Indian subcontinent under the rule of the Mughal Dynasty, in order to govern public and private morality as well as end un-Islamic activities.

1.1.5 Revival and Female dancers (18th century)

After Aurangzeb 's defeat in 1707 and the ensuing fall of the Mughal Empire the art form was somewhat revived. The Indian community disapproved of such a ban worrying that Hindu temple dancing 's rich and ancient custom was being persecuted under the pretext of social reform. As the Indian independence movement advanced slowly in the early twentieth century, an attempt among Indians to restore Indian culture and history seeth with enthusiasm.

Among them, Vedantam Lakshminarayana Sastri played an instrumental role in reviving and restoring Kuchipudi, as well as encouraging women to walk this style of dance. Through retaining Kuchipudi his mentor Vempati Venkatanarayana Sastri also remained a key figure. The dance style was popularized by public appearances by Chinta Venkataramayya, another stalwart. Many Western artists who had come to study traditional Indian dance styles have been part of the revival movement.

1.1.6 Kalakshetra in Kuchipudi village (19th century)

In 1961 Sri Siddhendra Yogi kala peetam was established in the village of Kuchipudi to teach and practice the dance style, where, irrespective of their class, caste, colour or religion, everybody was permitted and accepted.

1.1.7 Telugu vishwavidyalaya (20th century)

In 1981, chief minister N.T.Rama Rao established Kalakshetra as part of the Telugu vishwavidyalaya (Telugu University), and the programme was implemented with certificate and diploma courses.
Later on M.A course, Sathvika abhinayam, Yakshaganam, Sangeetham, Violin and Mridangam courses were also introduced.

1.2 Role of women in development of the dance form

1.2.1 Origin of Kuchipudi: Involvement of Men in Kuchipudi

Dance has been practiced in South India since time immemorial. Kuchipudi takes its name from Kuchipudi village where Kuchipudi 's male Brahmin practitioners lived. While there was a parallel system of temple dancers and devadasi dancers that later developed into Bharatanatyam's classical dance style, Kuchipudi, as we know in the 18th , 19th and mid-20th centuries, emerged as a male practice, precursor forms being pagati veshalu, yakshaganam, yakshagana natakas that concentrated primarily on nataka or dance style drama.

It is said that Siddhendra Yogi, the father of the art form of Kuchipudi, once dreamed of Krishna dancing with his consorts Rukmini and Satyabhama and since then went on a journey in search of dancers and in the village of Kuchipudi, each Brahmin family had to train one of their sons to learn dance drama that involved both male and female roles. This is interesting that, contrary to the social custom of those days, women of elite castes of the days were not permitted to be part of the dances, thus men playing female roles. There is also another reference that says it is probably because Siddhendra Yogi's thinking propitiation of god by people creates a different energy and takes a different way to please god as opposed to the delicate dancing of women.

Rukmini Devi Arundale's reference addressing the likelihood that Kuchipudi may be an adaptation of Bharatanatyam in its drama form at the 1958 All India Dance Congress in New Delhi, India is documented. Although this is debatable in a number of ways, it definitely seems reasonable to accept that Kuchipudi, as we are learning today, contains a solo repertoire that contains Javalis, Padams and Kalapams who find their historical origins in Devadasi dance styles. Vedantam Lakshminarayana Sharma, a notable visionary legend of the days after the Devadasi Emancipation Act, created a solo repertoire to create new opportunities for devadasi and get them back into the mainstream. Just a couple of notable Devadasi cult personalities including M. S. Subbalakshmi, a renowned Carnatic classical singer, was fortunate to join the social status middle-class women of those days through her marriage, but most of the others were treated unjustly in those days.

The genuine, committed initiative of Dr. Vedantam Lakshminarayana Sharma garu to introduce these devadasis into the mainstream performing art has resulted in the inclusion of a solo repertoire that includes Javalis, padamas in today's classical Kuchipudi dance.

(Fig. 3: Devadasis involvement in performing arts)

1.2.2 Anatomical and Emotional Differences between Genders

Gender plays a significant role in the portrayal of any medium of art which can be put in several ways – power, feelings, social reliance / dependency and more. This is not only important to consider from the viewpoint of Indian dance but from the viewpoint of world dance as we see these components in all the various styles of dances-ballet, hip hop, Bharatanatyam, Kuchipudi, Kathak, Geogian Folk, Australian Tribal, Bulgarian Folk, Flamenco; the list goes on.

As described in Indian mythology, purusha (the man – Maker or Srishti or Creation) is the man and prakruti (the female – nature or bearer or nurturing element) has identified the role of male dancer as being more tandava (aggressive style) while female dancer as being more lasya (delicate or gracious).

(Fig. 4:Male and Female Kuchipudi Dancers)

1.2.3 Impact of Gender on Kuchipudi

Kuchipudi, as a dance form, has an fascinating evolutionary past in the sense of gender, aside from all the physical variations and moral desires that men and women encounter in society. Prior to Kuchipudi, the original temple dancers were all female dancers who catered to Gods and later to the Kings of the days who introduced effeminate and sensual or devotional dancers appropriate to the background to please their audience respectively.

Kuchipudi dance started with pagati veshalu, yakshaganam and other dance dramas as male led dance forms. Men also played both male and female roles in the dances during these days. That is possibly the reason why the characters are exaggeratedly dramatized when man plays a female's role. Later, the dancers became mostly women as the solo repertoire was introduced and social expectations shifted where they became a major part of the performing arts. Women also played male as well as female roles in dance dramas these days.

The transition of Kuchipudi from male dancers to female dancers and back to male dancers is an interesting and unique journey for this art form. It is but obvious to expect that the bodily and emotional quotients added their flavor through this journey of genders in Kuchipudi.

Unlike many other classical Indian dance styles, Kuchipudi has very fast and violent movements, probably in the form of dance dramas that can be traced to the male roots of this dance style. When the dance style was introduced to the solo repertoire and female dancers the lasya or elegant introduction was applied to the dance form.

The generation of female dancers who learnt from the male teachers showed the same vigor and enthusiasm in dance as the male dancers, since the earlier gurus or teachers are all male. The exaggerated feminine gestures that male dancers incorporated into the dance style were also probably brought.

1.3 Therapeutic value of Kuchipudi dance

Dance offers an engaging, non-competitive form of exercise with possible beneficial consequences on both physical and mental health (Chatterjee, 2013a). This has the ability to inspire and excite people and can be a means to get people interested in physical exercise (Clippenger, 1997).
Nowadays it has been used as a method of treatment in many hospitals and medical facilities not only for mental health but also for physical health as well. It is known that dance therapy as exercise increases the neurotransmitters called endorphins which increase a state of wellbeing. Dance improves overall body movement which helps strengthen circulatory , respiratory, skeletal and muscular systems (Quin, Redding & Frazer, 2007).

1.3.1 Dance Therapy: Indian Perspective

Ayurveda keeps dance as a calming force (therapy) and an inner consciousness (psychology). Indian theory also promotes the Sangeet truth (song, dance , and music) both physically and psychologically for the good of human wellbeing (Shastri, 1931).
The Natyashastra, a millennium old Indian treatise, seems to be the first in recognizing the two-fold importance of psychology in connection with the production of a natya (drama), comprising geet (song), badya (music) and nritya (dance).

According to Natyashastra, among the four representation strategies (abhinaya), such as movements (angika), words (vacika), make-up (aharya) and sattva (sattvika), angika consists of physical expression through the use of various motions and postures (Ghosh, 1967).
The eyes have different perceptions based on the internal situation (bhava) and emotions (rasa) gestures.

(Fig. 5:Kuchipudi vocabulary)

Eyeballs are also responsible for specific modifications that establish perceptions of various thoughts and attitudes, lips, nose, cheek, jaw, back , arms, limbs, etc. It also contains numerous movements of the body (torso), hand motions, movement of specific parts of the body in its particular directions and their influence on dance, as well as on the human body and mind (Shastri, 1931).

These types of works are in a very nascent stage in modern India. Some organisations and institutes are interested in doing some research by dance therapy to improve their lives.

1.3.2 Therapeutic Value of Indian Classical Dances

Indian Classical Dances and their ancient past suggest that such dances are aimed at enhancing the wellbeing of dancers from the very beginning. They are compared in many cases to yogis as a form of physical and mental exercise.

Kuchipudi (Therapeutic Value)

The movements in Kuchipudi are quicksilver and scintillating, rounded and fleet-footed. Kuchipudi dance is vachika abhinaya (based on dialogues) oriented. It also highlights the therapeutics as was followed in Natyashastra more than any other dance form in India. Each aspect of abhinaya or the expressive means is given a detailed description in this dance. This dance requires proper body balance. The therapeutic effects of this dance form are embedded in its grace and fluid movements. The survey conducted with the dancers showed strong effects of some muscles including rectus abdominis, abdominal external oblique, latissimus dorsi, gluteus maximus, etc.

1.4 Evolution of Vernacular or traditional indian construction in parallel to the kuchipudi dance form

(Table 1: Transformation of Kuchipudi dance form based on the other influencing factors.)

Time/ Phase	Context of performance	Audience position	Spatial setting	Gender involved	Choreography
Origin - Natyashastra (500BCE)	INCEPTION Religiousness	Audience aren't generally involved	Temple dancing (Mandapam) Area type: semi open space	Female dancers dance to worship god	Originally no presentation choreography involve
Bhagava-Thulu (10th C)	INFLUENCE Poets dance-drama troupes roam around places convey to stories to people	Audience as witnesses who appreciate the art of dancing and choose a frame based on their interest	The dancer and the viewer are dominated by the space Area type: Open space	Male dancers as female dancers have many restrictions in terms of safety	Men played both male and female roles in the dance Hence, exaggerated dramatization of the characters
Kuchipudi village Agraharam (17th C)	DECLINE Ban of public performances of all dance arts	–	–	–	–
Revival and Female (18th-19th C)	INFLUENCE Indian freedom movement progressed - effort to revive of Indian culture and tradition	Inside the auditorium, the dominant participant is the viewer. Frame is clearly defined.	Formal Auditorium/ Theatre Area type: Closed space	Both Male and Female dancers are involved equally to portray unity and empowerment	The lasya or delicate presentation got added to the dance form
Kalakshetra in Kuchipudi village (20th C)	CONSERVATION Maintenance & expansion of cultural heritage	Inside a studio, space is defined for both the dancer and the spectator	Dance studios Area type: Enclosed space	Both Male and Female dancers are involved equally	Preserving same vigor and energy and exaggerated feminine movements in the dance form

2. Temple architecture: as a setting for Indian Classical dance in history

To understand the significance of dance in the community and life of the people, it was important to research the temples in designing the space for dance today. Temples were not only places of worship, but also places where they nurtured and flourished music , dance, art and architecture.

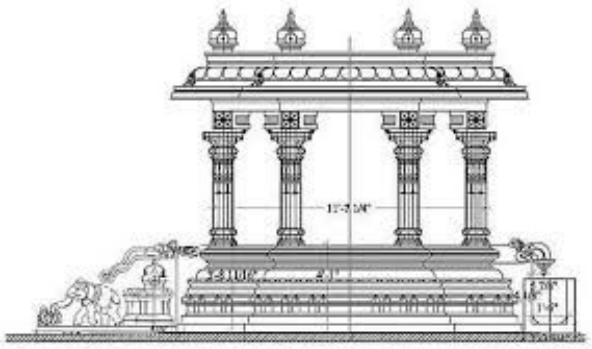
(Fig 6: Mukteswara Temple, Bhubaneswar)

The convergence and fusion of art and architecture provided a rich cultural representation of that time in the architecture of temples in India. Over the years, the dance style which started as a devotional dance for the gods has developed into a stage-based performance, physically removed from the temple setting. What is lacking today is a room that embraces this evolution of the dance form and allows for the continuation and improvement of an interconnected vision of creative development.

2.1 Dance and temple

The Natya-shastra monograph on drama and dance describes the importance of performing arts as being similar to rites of worship and ritual sacrifice in the quest for moksha, the liberation from the processes of rebirth. Each dance and performer serves as an instrument of divine intervention and is mirrored in the architectural surroundings.

The temple shares this importance of getting acquainted with its attendees in a multi-sensory spatial setting as a dance performance venue and built on the mandala base. Since its origins, classical Indian dance styles have become a common cultural icon, and the numerous incarnations of the dancer have become the distinct yet essential link between tradition and modernity.



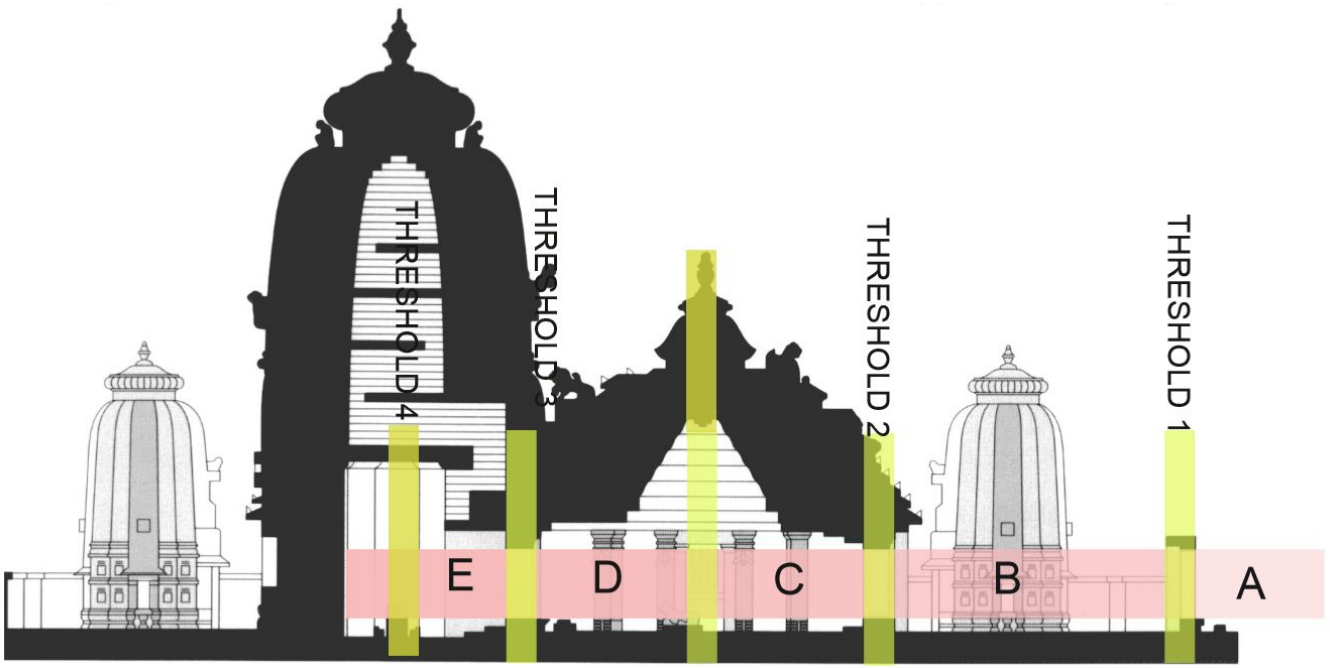
Temple mandapam: In a Hindu temple the Mandapam is a porch-like structure through the gopuram and leading to the temple. It is used for religious dancing and music and is part of the basic temple compound. The Koothambalam is an enclosed space while the temple Mandapam is open except for the columns/pillars.

(Fig 7: Elevation drawing - mandapam at a temple)

2.2 Temple dynamics - The human body movement in the temple

"The achievement of divine purity in Hinduism is similar to the long path of several stages, also visualized as a development upward through various stages of consciousness. The temple is often built as a point of travel, a ford or a crossing location. The movement of the devotee and the priest is of utmost significance in the ceremonies which take place inside the temple.The meaning of the movement through the doors is related to the concept of transformation from the earthly to the everlasting." (Michell, 1966)

The "temple walk" is a comparable study that models the theater walk. A set of thresholds connect the environment between the outside and the within, forming a spatial chain by which one travels toward the main goal. As the body travels through these overlapping spaces in a temple, it passes through a shifting experience created by the architectural elements, which intensifies excitement to reach the origin from which life was formed. These are among the fundamental concepts that connect and define some of the key principles in past and present-day architecture.



(Fig 8: Brahmeshwar temple Section (depicting the thresholds on the temple journey)

3. Pedagogy and practice of Kuchipudi:
(Guru-shishya pedagogy of Indian classical dances)

Indian classical dance, Kuchipudi has its own dance-positions and movements repertoire, along with its own catalogue of historically choreographed and performed dance pieces. -- one also has a particular traditional performance structure which is followed by all dancers when offering a complete classical dance concert.

3.1 Pedagogy and practice of Kuchipudi:
(Guru-shishya pedagogy of Indian classical dances)

3.1.1 Context of origin

Kuchipudi 's origins carry a religious context. The religiosity of the dance style is expressed in their historically performed dance-items, which have been transferred from one generation of artists to the next.

Their traditional repertoires, born out of temple-worship, are full of devotional objects such as repertoires that involve invocation and worship of numerous gods and goddesses such as Sri Krishna, Lord Shiva, Lord Ganesha, Durga and Saraswati by dancing on devotional poems. In addition, some dances offer dramatic depictions of Hindu mythology (puranas) themes or histories and of epics such as Ramayana and Mahabharata.

(Fig 9: Ramleela kuchipudi performance)

Therefore religiosity and sacredness are central to the artistic spirit of all classical Indian dances from birth until today.

3.1.2 Context of performance (Originally and currently)

Context of performance for all classical Indian dances lies originally in the religious environment of ancient Indian temples. Today it is moved to a theatrical setting that acknowledges and welcomes Indian classical dance performances around the globe. Despite changing their context, their artistic spirit has not lost its touch of religiosity and sacredness.

3.1.3 Primary nature of dance-movements / choreography

There is an extremely complex aspect of the Kuchipudi dance gestures. The movements of Kuchipudi dance style contain several technicalities in the way a dancer is supposed to move within a given space and time frame. The manner of expressing beauty and rhythm in any classical Indian dance is intricately described. There is also a simple artistic structure for representing subjects or legends, and for conveying emotions.

Indian classical dance moves are choreographed in such a way that they should be aesthetically presentable to the viewer, their presentation is not achieved in the manner in which they are performed in Indian film Bollywood dancing.

(Fig 9a: Exaggerated body movement in kuchipudi performance)

The dancer dances before the crowd in Kuchipudi dance style, not for the sake of attracting or amusing them, but for the sake of displaying the audio-visual beauty of the dance form and the related dance skills.

3.1.4 Position of audience in performance

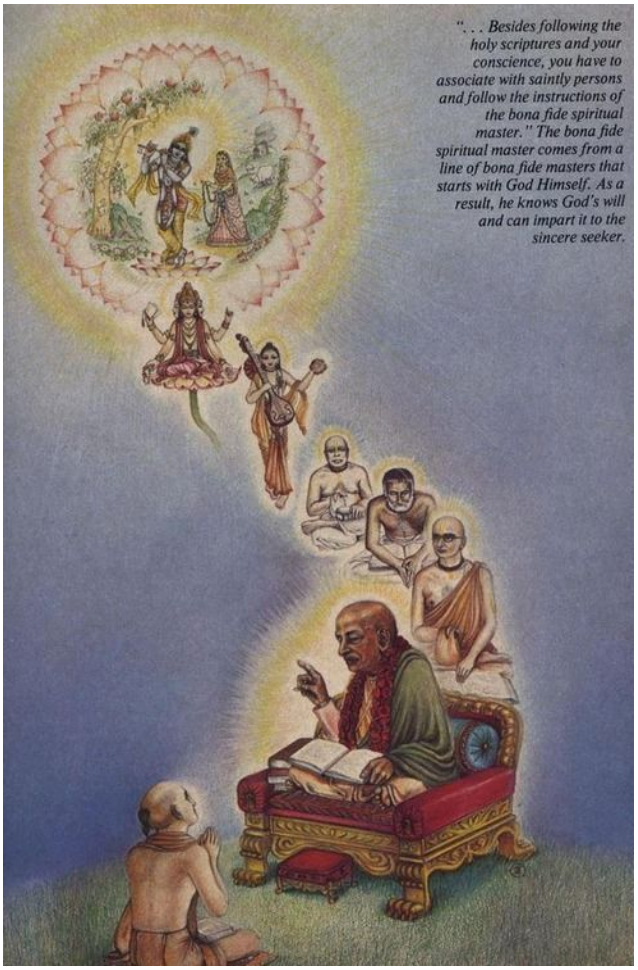
A classical dancer is still aware of the audience's participation. Choreography and presentation in Kuchipudi dance are focused around the concept in language and connection to the viewer, and not around the concept of attracting their attention or receiving respect. In short, for a show at Kuchipudi, spectators are like passive observers watching not the 'dancer' but the 'craft of dancing.'

3.1.5 Position of dance in life (Originally and currently)

In ancient times the Kuchipudi dance style was an integral part of the dancers culture. However, the art and pedagogy of Kuchipudi have become a profession or a hobby for many in the modern times.

4. Place of Pedagogy in Practice of Dance

Both classical Indian dances have a pedagogical tradition, called the parampara guru-shishya. It is a special characteristic of Indian culture where a guru or the teacher who is the abode of wisdom passes on to disciples (shishyas) his / her wisdom. The conventional (paramparik) guru-shishya relationship, interaction, and knowledge conveyance and receipt, is more than a pure teacher-student relationship and interaction that is known in present times.



(Fig 10: Ancient hindu Guru-Shishya parampara)

4.1 Guru- Shishya Parampara

It is an incontrovertible truth that knowledge of music and dance can only be acquired through direct contact with the Guru because it has proved unnecessary for those who are a practical subject, books and notations etc. The ancient Guru- Shishya Parampara alone, literally, has made Indian classical dance or music prosperous and successful.

In those days the students used to stay in the Guru 's house and usually learn expertise. This system is called the learning system of Gurukul. Gurukul 's definition is, "reading while staying at his house with the Guru." Those who had intense will to learn Kuchipudi or any other classical dance during this period.

They have learnt classical dance or music for many years while living in a guru ashram. The student will pass the final exam for learning after strict adherence to the Guru's commandments only after the complaisance granted by the Guru. After this examination the Guru will give the student information with an open heart and also take full responsibility for the success of the student.

Along these lines, as they spent most of the time together both the Guru and the student had suavity and intimacy in the relationship between them. No fees were taken by the Guru from the student. The student’s devotion towards his Guru was what the teacher always cherished for.

History tells us that practices have kept alive the institution of Indian classical dance like Kuchipudi, owing to which a consistency was observed in its development. Traditions in Kuchipudi style of dance offer harmony, perseverance, and endurance. Gurukul Parampara 's system, which is a well-known truth, has been given much importance and the fact that we can't ever imagine learning it without keeping in mind Parampara of Indian classical dance.

4.1.1 Merits of Guru Shishya Parampara

1. The Gurus possessed enormous knowledge and was able to teach the most arduous things.
2. This Parampara used to take its time and the students used to come out in a very good way because of this.
3. They used to inherit a certain style and had the usefulness therein.
4. In this the student was well trained and he had the full authority for his art form.
5. The students used to have very humble respects for the Guru and discipline was pursued due to this they got the opportunity to learn the good points of the attitude and art.
6. They were trained verbally or face-to - face and that type of teaching has many advantages.
7. The atmosphere given to the student made sure he had an artist coming out.

4.1.2 Demerits of Guru Shishya Parampara

1. The student never received a taste of the other styles since only one Mentor reached him.
2. There was no time period allotted for the course. The student had to depend on the teacher totally.
3. The ancient system did not entertain the theoretical wing of the art.
4. The Guru used to hide a lot of important points which the student used to be unaware of.
5. The student also had to do all the inferior daily house chores.

4.1.3 New trends of guru-shishya parampara

All is history because it is not possible for both the pupil and the teacher to find unity based on these small values in today's world.

In the style of 'Guru-Shishya Parampara' to cultivate and spread the precious heritage of Indian Classical dance. The New Gurukuls' aims and vision are in selecting classical dance like Kuchipudi as an area of their social responsibility.

The three target goals are:

1. Creation of an effective training system.
2. To rationalise traditional data with the help of modern research methods and technology.
3. Preservation and propagation of music.

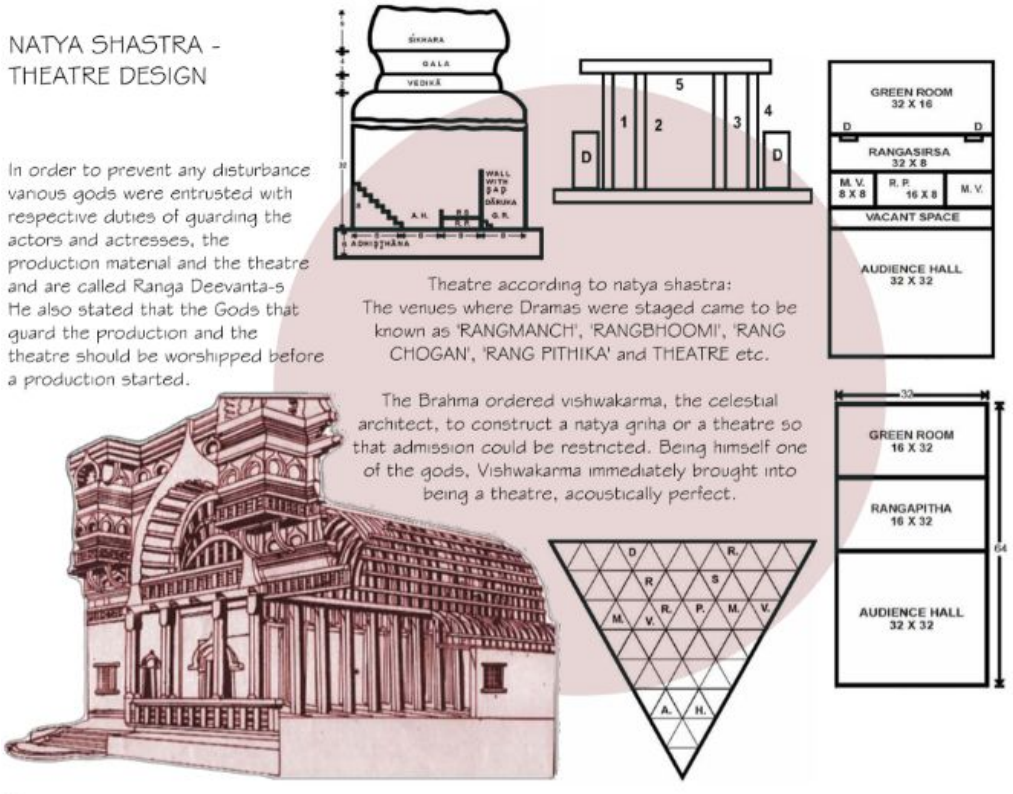
5. Place of Performance of Dance

5.1 Theatre according to Bharata muni's natya shastra

The venues were known as 'RANGMANCH,' 'RANGBHOOMI,' 'RANG CHOGAN,' 'RANG PITHIKA' and THEATRE etc.

The Brahma instructed the celestial architect Vishwakarma to create a natya griha or a theater so that entry could be limited. As one of the gods himself, Vishwakarma automatically built an acoustically sound theater.

In order to avoid any disruption, different gods were entrusted with the respective tasks of guarding the actors and actresses, the material of production and the theater-the Moon was overall in charge of the theater, the lokpals guarding the sides, Mitra in charge of the green rooms, VaruNa the ceiling, Agni the stage, Meeghan the instruments, Brahma the performing field, Indra the hero, Sarasvati the heroine, Hara the rest of the artistes etc. "those gods that are in respective charge of the various sections of the production and the theatre shall be called Ranga Deevanta-s or the presiding deities of the theatre and hold supreme charge of those sections" were the powers made over by Brahma. He also stated that the Gods that guard the production and the theatre should be worshipped before a production started. The worship is included in the Purvaranga Vidhi or pre - presentational rituals.



(Fig 10a: Theatre according to natya shastra)

5.2 Mindfulness: Pedagogical Tool

5.2.1 Before the dance

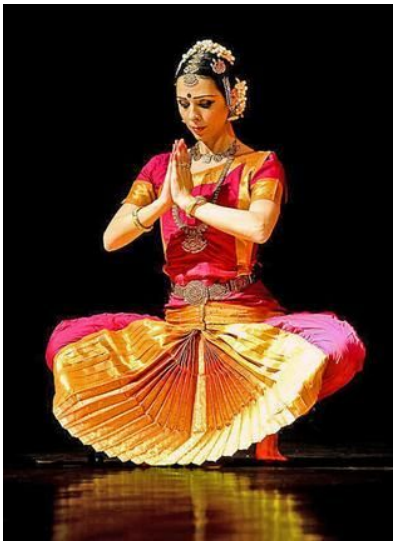
The Kuchipudi Indian classical Hindu dancer will establish an understanding of a connection to the elements the dancer is decorated with, including the hair, shoes, and costume of the dancer. Looking closely at the material items the dancer wears means the performer sees the performer as a one of the items.

That's because the dancer's makeup, jewelry, and costume are part of the dancer 's presence.

The Kuchipudi Indian classical Hindu dancer adorns the human body with jewellery as dazzling as the rays of the light as the divine transformation starts. The costumes are a part of the dramatic language that depicts the roles who become the Hindu dancer during performance.

(Fig 11: Kuchipudi dancer makeup before the performance)

The dancer is able to wear the sacred Ghungroos, bells worn on the dancer's ankles once the dancer is decorated with hair, jewelry and costume. Ghungroos are worn to portray the rhythmic beatings of the dancer to the public. Additionally, the Ghungroos are a type of music, representing an emblem of the musical goddess, Sarasvati Mata, for many Hindu believers. The fine arts deity is a representation of the Only Universal Being.



(Fig 12 and 13: Kuchipudi dance ghungroo andr namaskara before the performance)

Upon dressing up the Kuchipudi Indian classical Hindu dancer, the dancer continues to typically prepare for the performance by performing the puja ceremony. The puja 's intent is to acknowledge the Supreme Being who is demanded to protect the dancer.

5.2.2 During the dance

The Indian classical Hindu dancers Kuchipudi execute Namaskaram before a formal dance starts. There, the dancer uses the body to thank the Supreme God, the world's teachers, the audience and Mother Earth, who is known as Dharti Maa in Hinduism. By touching the stage floor the artist humbly embraces Mother Earth. As the dancer touches Mother Earth, the dancer asks Mother Earth to forgive any harsh moves that the dancer may make during the dance.

(Fig 14: Kuchipudi dancer portraying hindu goddess)

The dancer is the danced character in the Kuchipudi dance drama. Kuchipudi music, in a way, is portrayed in acting form. The Indian classical Hindu dancer Kuchipudi uses emotions and feelings to portray the characters within the drama. That drama is known as Natya in dance, Because the Kuchipudi Indian classical Hindu dancer undergoes a spiritual transformation in order to become a character for the audience, focusing on thoughts and actions during the dance is crucial. Additionally, the performer must concentrate on any dialogs that may take place throughout the dance.

Apart from portraying characters on stage, the Indian classical Hindu dancer from Kuchipudi also dances to melodies that do not relate the Hindu history. Alternatively, the Kuchipudi Indian classical Hindu dancer dances to the dance's rhythmic beats while being merely the performer and not "playing" the characters as "roles." This kind of dance is considered pure dancing.

5.2.3 After the dance

Vatsyayan compares Indian classical Hindu dance to puja, a ritual performed in memory of the One Supreme Being which in Hinduism has several different embodiments. Unlike the yajna the dramatic spectacle has a spiritual and ethical meaning. It would lead to religious obligation (dharma), economic capital well-being (artha), polished senses (kama), and salvation (moksha).

The arts are therefore an alternate, if not a similar, path to the avowed goals of a society that works concurrently on the three levels of adhibhautika (material), adhyatmika (individual soul and self) and adhidaivika (divine metaphysic).

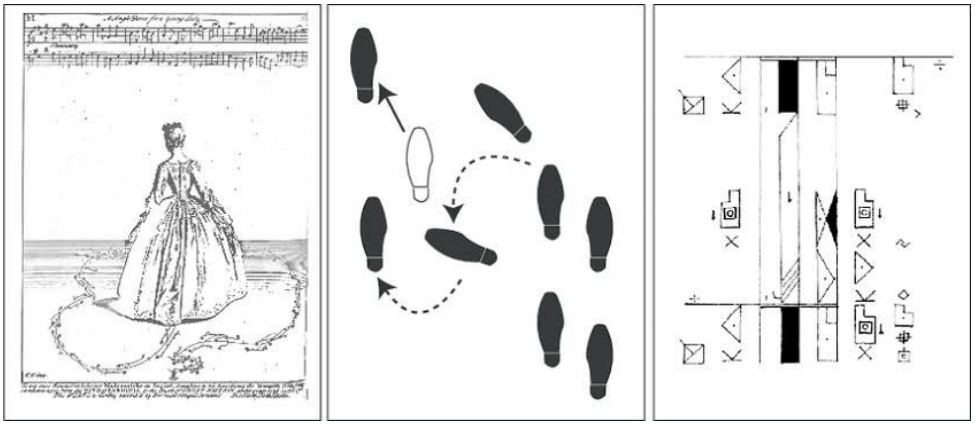
6. The Evolution of Dance Technology

Art increases human cognition and reactivity. Technology is broadening man's strength. The history of science is characterized by amazing inventions and technological findings that have had a direct impact on the events of our past. The humanities, and on the other hand, have tried to reflect and glorify the course of history. The arts and engineering have coexisted for centuries, and over the years computers and technology have influenced the arts to varying degrees. Nevertheless, today 's innovation is a power within itself, and unlike any other previously designed and produced machinery or tool.

Dance may seem the least likely of all the arts to access the complexities of rapid shift and the relentless advances of this new technology. Dance, the art of human movement, is not surface oriented physically. It is the art of self-sufficiency.

6.1 Dance Notation

At the University of Pennsylvania, in the 1960s, efforts were made to explore the potential relation between machines and dance. The choreographic mechanism was slowly established and regulated using only a computer and comparatively remarkable processing capabilities, although unfortunately the results of this cooperation were not released or executed to the public.
The Labanotation systems have also hopped on board in dance notation. The direct consequence of active dance monitoring systems is to explore the signals of motion and position on the images of the human psyche, especially those that can dance with translation.



(Fig 15: Evolution of dance notation)

6.2 Technology Assisted Dance

Computer-controlled dance notation programs and animated body modeling techniques contributed to electronic dance routine studies.
In the world of robotics program awareness is probably the most influential and dramatic application for compositional purposes and creativity.

7. Types & Forms of Contemporary theatres

7.1 Opera house

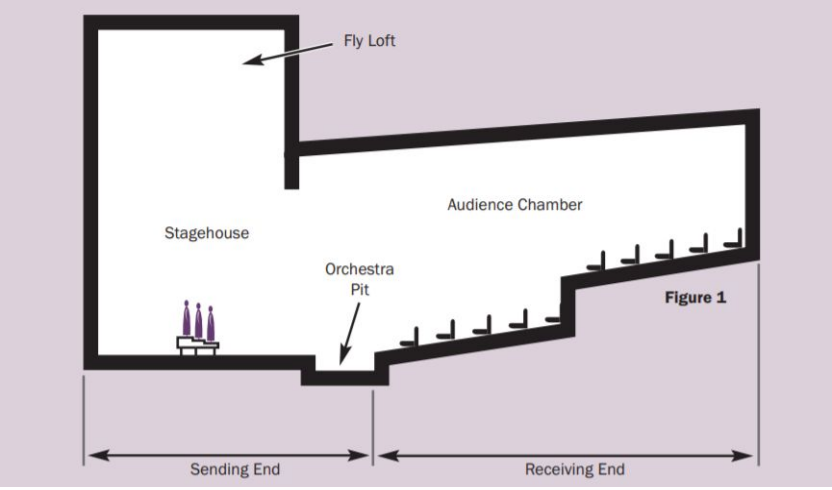
An opera house is in the form of a proscenium theater. The number of seats ranges from 1,200 to 2,000 with an upper limit of approximately 2,400. In order to enhance visual and aural intimacy, the auditorium is almost always multi-level with side sections or boxes.

7.2 Dance Theatre

Generally end stage or proscenium are smaller 100 to 300-seat spaces built for dancing. The auditorium's architecture emphasizes frontal sightlines and a clear view of the stage floor. Sometimes the seat is on telescopic risers that can be retracted to allow rehearsal or
instruction to use the entire space.

7.3 Multipurpose theatre

Generally found in medium to large cities - The contemporary multipurpose theatre.
The aim of these proscenium theaters is to host a number of activities— symphonic music, opera, musical theater, dance, and traveling productions.
The number of seats varies between 1,200 and 2,400 with an upper limit of about 2,800 seats.



The setting layout or positioning of different components in a contemporary dance space can be seen as below. The division of space can be divided based on the sending end (dancer or performer) and receiving end (audience)

Fig 16: Basic setting of a contemporary dance space (Auditorium/Dance theatre)

8. DATA COLLECTION AND ANALYSIS

8.1 Temples: Practice and pedagogy space (traditional)

8.1.1 Parsurameshwar temple in Bhubaneswar(650700AD):

Fig 17: Parsurameshwar temple in Bhubaneswar

1. The temple stands as a solid mass structure with no openings or penetrations and the short assembly chamber that was added later does not seem very coherent in style with it.
2. A squat rectangular assembly space was also used as a dance pavilion (shown in dotted).
3. Stone is used harmoniously on the floor, the walls and the roof as if the temple has risen from the earth like a mountain and rising up to the sky.
4. The convex surface of the main temple implies this emphasis along the vertical axis, even more.

8.1.2 Mukteswara Temple, Bhubaneswar(late 10th century AD)

Fig 18: Mukteswara Temple, Bhubaneswar

1. The Dance Pavilion seen here is still rectangular in plan but its design is much more well integrated with the main temple and proportionately balanced compared to Parsurameshwar temple.
2. The entrance to the temple is marked by a beautifully sculpted gate that marks the threshold to the temple complex. The doorway of the assembly hall creates yet another threshold before one enters into the main chamber. These elements portray some of the fundamental concepts in Indian architecture and culture, i.e. the significance of the in-between space and it is necessary to understand them in order to design the performing arts center in this cultural context.
3. Even though the two chambers stand as two distinct structures, yet their proportions are more harmonious to each other in comparison to the parasurameswara temple.

8.2 Performing spaces;

The performing spaces will be studied under 2 heads;

- Traditional and contemporary
- including indoor and outdoor types.

8.2.1 Koothambalam

The Koothambalam meaning temple theater is a closed hall for staging traditional art forms in Kerala. A square platform with a separate pyramidal roof supported by pillars in the centre called natya mandapam is constructed as a separate structure within the large hall of koothambalam. The floor of the hall is divided into two equal halves and one part is for performance and the other half for seating audience. The structure is rectangular in plan with a hipped roof.

The unique feature of the koothambalam from a modern perspective is its method of enclosing space from the sides. Instead of walls, it has a slanted and sometimes curved plane of trellis work, which always lets the breeze - along with intimations of everyday like outside - into the performance space.

Dance center:


Fig 19 and 20: Koothambalam at kalamandalam, Kerala

8.2.2 Temple mandapam

In a Hindu temple the Mandapam is a porch-like structure through the gopuram and leading to the temple. It is used for religious dancing and music and is part of the basic temple compound. The Koothambalam is an enclosed space while the temple Mandapam is open except for the columns/pillars. Many classical dance and music performances traditionally happened in these Mandapas.

8.2.3 Auditorium

An auditorium is a room built to enable an audience to hear and watch performances of venues such as theatres.

The floor area of the hall including gangways (excluding the stage) should be calculated on the basis of 0.6 to 0.9 sq.m per person. The height of the hall is determined by such considerations as ventilation, presence of balcony and type of performance.

8.2.4 Amphitheatre

An amphitheatre is an open-air venue used for entertainment, performances, 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. Seats may be set on a rising parabolic curve, or on two different inclines, a fairly mild slope for the lower half of the auditorium and a sleeper slope for the upper hall.

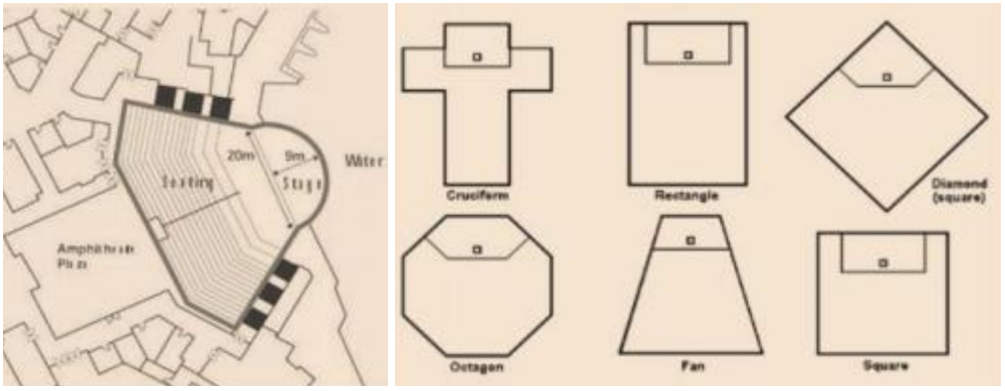


Fig 21 and 22: Amphitheatre and Auditorium plans

8.3 Space analysis:

Analysis of different kinds of spaces where the activity of dance is performed

8.3.1 Enclosed space:

Inside a studio, space is defined for both the dancer and the spectator. Here, the dancer dominates the space during the activity.

Fig 23: Dance class at kalakshetra, Chennai

8.3.2 Semi open space:

In a semi open space is already defined only by the dancer. The dancer and viewer are equally dominant in such a space.

Both dancer and viewer get to choose a frame based on their interest.

Fig 24: Mandapam (Hindu temple)

8.3.3 Open space

In an open space, the dancer and the viewer are dominated by the space. A defined frame can not be defined here by either of them.

Fig 25: Banyan tree at kalakshetra, Chennai

8.3.3 Closed space: Formal Auditorium

Inside the auditorium, the dominant participant is the viewer. Frame is clearly defined. But the only frame available is the one provided and there exists no choice. Here the dancer is less dominant compared to the audience.

Fig 26: Auditorium at kalakshetra, Chennai

8.4 Interview with the gurus

8.4.1 Questionnaire for the Dance gurus:

The interview with a classical dance guru from case studies was taken by asking questions like;

Q1. Which type of teaching process was involved while you were a student, pursuing your dance education and what do you prefer now as a teacher?

Q2. What is your prefered type of interaction between Guru and students in the teaching process?

Q3. What is the significance of teaching and learning experience in Indian classical dance?

8.4.2 Responses from the gurus

Some of the important things are quoted below;

1. Sri Vedanta Shastri (Headmaster at Sri Siddhendra yogi kala peetham, Kuchipudi, AP)
   "*Guru-Shishya parampara is prevalent in Classical music and dance teachings. My guru taught me how to preach god through dancing, so the guru is equivalent to the god for me.*
   And I think this purity and respect can help learn the art form and teach to the following generations."

2. Sri Chinta Rattayya (Senior faculty at Sri Siddhendra yogi kala peetham, Kuchipudi, AP)
   "*I consider my dance studio as a sacred place. But these days it is just treated as any other classroom*."

3. Smt. Saroja Vaidyanathan (Senior faculty at Nrityagram, Banglore, Karnataka)
   "D*ancing for me is much more than the art form. It is 'Nritya-Aradhana' for me. A practice place is incomplete without the idol of Natraj.* "

8.4.3 Conclusion:

The results of the discussion and case study observations are compared below:

(Table 2: Comparative results)

Case study	Pedagogy	Inference (architectural + cultural)	Preference by the dance guru
Sri Siddhendra yogi kala peetham, Kuchipudi, AP	Institutional	No phenomenology in experience in the academy. Not so private feelings in teaching areas.	Guru 1: prefer the system as he feels it is optimum for the contemporary living style. Guru 2: prefer the gurukul as it is how he was taught and feels it leads to better learning of the art form.
Nrityagram, Banglore, Karnataka	Traditional Gurukul system	Organic Masterplan with the architecture having origin in traditional forms and construction. Experiential architecture due to organic planning. Very intimate setting for learning the art form.	Guru 3: prefer the gurukul as it is how he was taught and feels it leads to better learning of the art form. But sometimes face difficulty to cope up with the busy schedule of contemporary culture.

9. SYNTHESIS AND DISCUSSIONS

Kuchipudi, a classical South Indian dance style, has undergone many changes over time since it started as a male tradition and later absorbed female practices and is generally performed by both men and women, leading to changes in other similar factors such as architectural environment and pedagogy. Because of strong beliefs and a successful pedagogy program such as guru-shishya parampara, preservation of this cultural heritage has been possible. So to help preserve the art form, the correct atmosphere involving tradition must be created. This does not mean that there is no room for creating new discoveries and inventions; in addition, this will still be a part of this learning process at certain stages to suit the needs and desires of the future generation.

The best way to teach is qualified coaching classes in conventional guru-shishya style along with institutionalization & degree conferral. It can contribute to the attainment of a position that serves as a contemporary landmark and represents the origins of heritage.

CASE STUDIES AND ANALYSIS

1. PRIMARY CASE STUDIES

1.1 KALAKSHETRA, CHENNAI

Kalakshetra literally means a holy place of arts (Kala: Arts, Kshetra: Field or holy place). The teaching and learning of Bharatanatyam started with great expectations and has become synonymous with Kalakshetra. The need for holistic learning necessitated a good knowledge of music, musical instruments, visual arts, languages, heritage and history. The Rukmini Devi College of Fine Arts, is the prime institute of the foundation, established on the lines of a Gurukulam (the ancient training tradition in the house of a guru). The natural beauty and richness of the Kalakshetra campus became a cohesive environment of learning.

1.1.1 FUNCTION

The two main disciplines offered are - Performing Arts and Visual Arts.
Kalakshetra is a cultural academy dedicated to the preservation of traditional values in Indian art, like classical dance - Bharatnatyam dance, Gandharvaveda music, Carnatic vocal, instrumental music, visual arts, traditional crafts, textile design, textual heritage, history and philosophy.

1.1.2 LOCATION:

situated amidst trees spread over an area of five acres beside the sea.

SITE AREA:

5 acres

VICINITY:

Besant nagar, south Chennai. The complex is only a few metres away from the sea.
Theosophical society and Besant Theosophical high school are nearby.

1.1.3 OBJECTIVE OF THE STUDY:

1. To understand the site planning and zoning of the campus.
2. To study the Koothambalam, auditorium based on temple architecture.
3. To study surrounding context and the campus setting.

1.1.4 COURSES

A. CARNATIC MUSIC: Diploma in Carnatic Music is offered in Vocal, Violin, Veena, Flute and Mridangam for a course period of four years and a Post Diploma of two years.

B. VISUAL ARTS: A four year Diploma course is offered by this department and one year certificate course.

C. PERFORMING ARTS; Bharatanatyam: A four year Diploma course in Bharatanatyam is offered by the college as well as a Post Diploma of two years for those who have completed the diploma at Kalakshetra.

D. PART - TIME: Part-time classes (evening classes) are conducted for Bharatanatyam, Carnatic Music and Visual Arts. Age Criteria : 7 - 18 years.

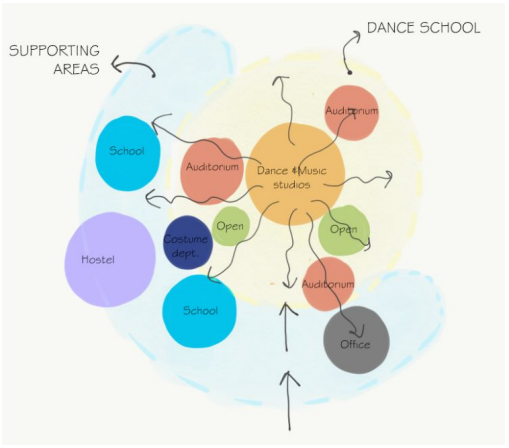


Fig 27: Site map kalakshetra, Chennai and Fig 28: Zoning

1.1.5 Visual frames and experience

1. As one enters the site, the humble entrance, peace and calm settles overmind because of the beautiful settings and serene ambience.

2. All roads are shaded well with trees on both the sides.

3. As one reaches past the administrative area, the sound of different kinds of music is a very pleasant invitation to the ears.

4. The classrooms are surrounded by the sand ground and trees making them close to nature.

5. All in all a gurukul like atmosphere prevails, which creates a perfect state of mind for music learning.

1.1.6 Spatial analysis

1. Master plan: A free flowing informal that has organically grown with the needs of the institution.
2. Central placement: The studios, the performance areas, and the prayer hall are spread in the central part of the campus and Administrative areas, hostels, staff quarters etc. cover the peripheral area of the campus.
3. Acoustically planned: The classrooms are all single roomed individual cottages and are placed at a distance.
4. Sound buffer: The campus periphery is lined by the huge neem trees which add to the average moderately formed in quiet expression.

1.1.7 COMPONENTS

I. HOSTEL AND DINING ROOM

The students reside in hostels, the buildings for which are on one end of the site for reasons of privacy and face the sea. Students are housed in dormitories with large airy rooms. Three college students share a room with an attached bathroom. Each dormitory is supervised by a resident house mother.

Hostel names with capacity:

1. Manasvini (20 students) 2. Padmasini (70 students) 3. Rukmani Vihar (25 students) 4. Seshammal Vihar (25 students) 5.Ananda Ashram (27 students) 6. Arundale Ashram (30 students)

There is a large dining hall open to the sea breeze where meals are served. It has attached kitchen facilities. A basic dispensary and an infirmary with two beds are available. There is a small library that may be used for private study.

Fig 29: Hostel (Kalakshetra, Chennai)

II. PRACTICE SPACES

Dance Studios

1. All the classrooms have sloping roofs.
2. A small verandah in front for removing and keeping footwears
3. They are 2 types: 8 m x 4.5 m for teaching vocal and instrumental music and 10 m x 7.5 m for teaching dance.
4. All the classrooms have full length jaali work which provide sufficient lighting and cross ventilation.
5. Some cottages are attached to accommodation of guru, and groups of 5 - 7 shishyas come for learning here.

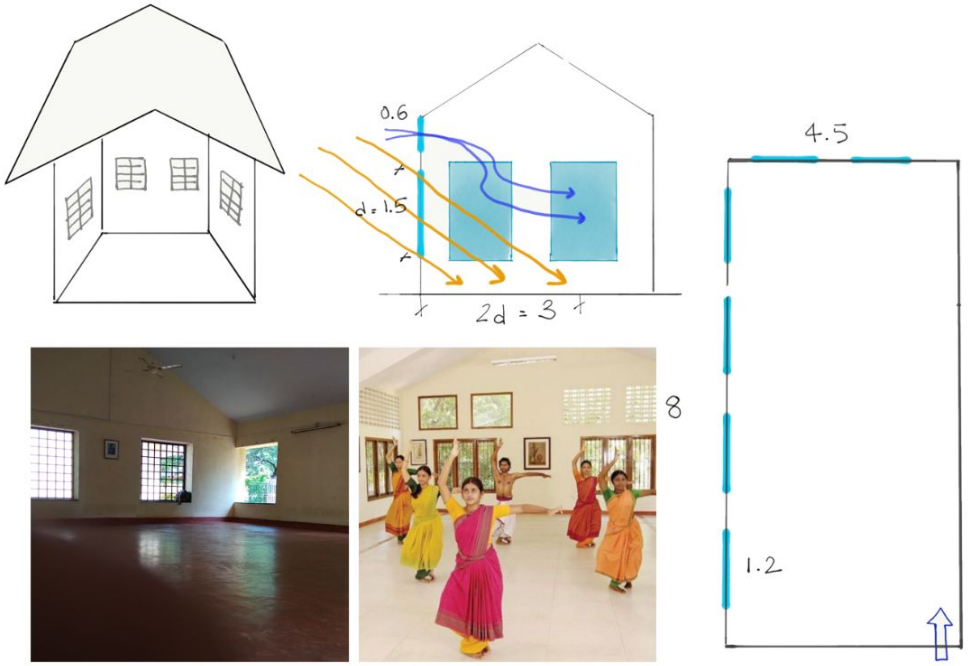


Fig 30: Dance studios

BANYAN TREE

A huge banyan tree is present in the centre of the campus, sometimes the classes are held here in the open.

Fig 31: Banyan tree open area for practice

PADMA PUSHKARINI

An amphitheatre constructed around a lily pond. It has granite pavilions and steps. Thiruvanmiyur was once home to several natural ponds that helped to maintain ground water level in the area. The pond at Padma Pushkarini is Kalakshetra's effort to preserve the natural resource. The amphitheatre is named after Padmasini, a caretaker at the hostel four decades ago. She was like a mother to the students and a big support to Rukmini Devi.

III. PERFORMANCE SPACES

TAGORE HALL

It is an L-shaped studio which was used as a prayer hall. Small dance and music programs and lecture demonstrations are often conducted here. It was renamed Tagore Hall after the bust of Rabindranath Tagore was installed at the entrance.

RUKMINI ARANGAM

This is Kalakshetra first theatre, designed and constructed by a renowned architect Laurie Baker. The theatre was built to suit Indian ambience and the culture of traditional dance drama. Its unique beauty was the beautiful proscenium stage with side entrances which are still preserved.



KOOTHAMBALAM: Bharata Kalakshetra Auditorium

Rukmini Devi's idea to build a beautiful Indian theatre with a spiritual ambience, incorporating advanced sound and lighting technology, became a reality when it was completed in 1982, in time for the golden jubilee celebrations of Kalakshetra. It was formally inaugurated in December 1985 by Mr. Rajiv Gandhi, the then Prime Minister of India.

Dimensions: Total - 12 m x 12 m Total capacity - 750 Floor directly in front of stage - 50 Octagonal well of the theatre - 428 Peripheral verandah - 168 Galleries in the balcony - 104
Architectural style - Koothambalam: Koothambalam meaning temple theatre is a closed hall for staging koothu and koodiyattam, the ancient ritualistic art forms of Kerala. Koothambalam are said to be constructed according to the guidelines given in chapter 2 of Natya Shastra of Bharata Muni. The stage is considered to be as sacred as the temple and is considered within the cloister of the temple.

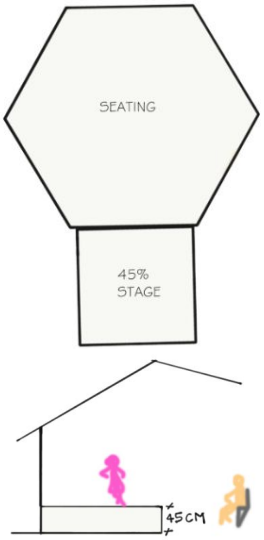
Materiality:
Built of timber, with slatted walls and tiled roof.
The whole structure is based on timber i.e the major structural elements are of timber. The boundaries between the outdoor and indoor are muted.

Construction and design

1. The intention for the auditorium was that the dance, now abolished in the temple, should create the temple atmosphere on the stage.
2. The structure is a long span structure using traditional Kerala architecture.
3. The stage is equipped with advanced lighting and sound systems.
4. The floor of the auditorium consists of a traditional sprung floor system i.e: spring is provided through bending woven wooden battens.

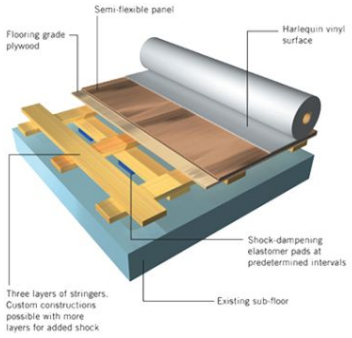
Inferences:

1. Regular communication between outdoor and indoor through natural ventilation and lighting.
2. The stage area is 45% of the audience area, reflection that the auditorium's design emphasized the art and the artist and the stage area was treated sacred.
3. The auditorium is used primarily for dance performance, the level of the stage area is 45 cm higher than the lowest level of the seating area. This enables all the audience to see the footwork clearly.



Flooring: Sprung floor system - Technique

A sprung floor is a floor that absorbs shocks and makes it feel softer. These floors are deemed the best available for dance and physical education and indoor activities. They improve performance and significantly reduce accidents.



Modern sprung floors are supported by foam backing or rubber feet, while traditional wooden battens provide their spring.

IV. MUSEUM

After the demise of Smt. Rukmini Devi Arundale, her personal collections were housed in a small museum on the campus. Over the years, the interest in Rukmini Devi's monumental works and her personal collections has increased.About 5,000 artefacts are in the museum, which includes objects in metal, stone, wood, fabric and porcelain, as well as paintings, prints, photographs and furniture. For want of a proper museum, it has not yet been thrown open to the public.

V. RUKMINI DEVI LIBRARY

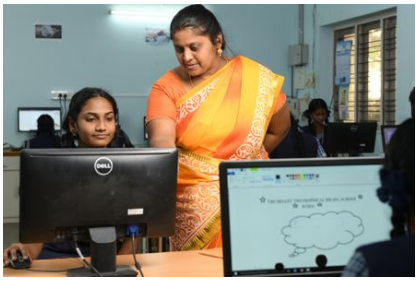
The library has a collection of 5,219 books from Smt. Rukmini Devi's private collection. This mainly houses books on bharatnatyam dance and carnatic music theory and some translated copies of natya shastra in tamil, english and sanskrit languages.

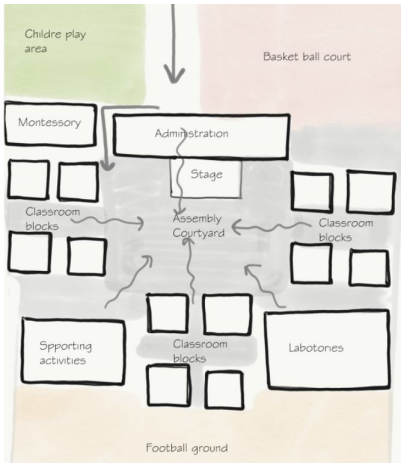
VI. TAG ARCHIVE CENTRE

The Kalakshetra TAG Archives Listening Centre was inaugurated on 3 January 2015. A total of 1,000 hours of archival audio material donated by TAG to Kalakshetra as well as 200 hours of archival audio and video material belonging to Kalakshetra are housed here. Students utilise the centre, listening to the archives during their leisure time. The centre has six computers.

VII. SANSKAR MENON LIBRARY

Sankara Menon library was started in March 1958 with a small collection of 1,040 books. At present, there are 10,830 books related to dance, music and fine arts..





VIII. BTHS (The Besant Theosophical Higher Secondary School)

Founded in 1934, is the oldest unit of the Kalakshetra Foundation. Affiliated with the Tamil Nadu State board syllabus, the school offers education primarily in Tamil, with the option of English medium education from the 6th to the 10th standard. The higher secondary sections – 11th and 12th standards – are run on a self-financing basis. BTHS is a government-aided school, and offers free education to more than 800 boys and girls. A noon-meal scheme provides free lunch daily to 300 students.

IX. BASS (The Besant Arundale Senior Secondary School)

Founded by Rukmini Devi in 1973. With a strength of about 500, the school has a Montessori environment for ages 2 ½ to 5 ½ years and a CBSE system for classes I-XII. Apart from the regular courses in science and humanities it is one of the few schools that offer dance, music and visual arts at the Senior Secondary level as main subjects, striking a fine balance between traditional and modern methods of teaching and learning. The school is unique as it offers Dance (Bharatanatyam), Music (Carnatic) & Painting as electives in the senior secondary level as the Fine Arts stream. Thousands of students have benefited from the exposure to the finest traditions of Indian fine arts along with good academic training.



Other periphery components of the campus are:

1. Reception and resource center 2. 2 guest houses 3. Administration block 4. Outdoor sports area
5. Toilet blocks - 6 in all 6. Parking

1.2 NRITYAGRAM, BANGLORE , KARNATAKA

Nrityagram is a community of dancers in a forsaken place amidst nature. A place where nothing exists, except Dance. It was designed by Gerard Da Cunha, following the vernacular architecture of the region. It is in the North western part of Bangalore about 30 kms from Hebbal.

SITE AREA: 4 acre

1.2.1 Location:

Hessaraghatta, outskirts of North western Bangalore

SURROUNDING CONTEXT: The site is located away from the city surrounded by green fields.The building has become an icon for tourists and the road in front of the campus is called nrityagram road because of its significance.

ARCHITECT: Gerard Da Cunha. The buildings are built of mud giving the feel of a village. Open areas have large green cover and many trees dot the place.

ACCESSIBILITY: Hesaraghatta village, cut off from main city. The nearest bus stop is the Hesaraghatta village stop, from there an auto ride takes one to Nrityagram.

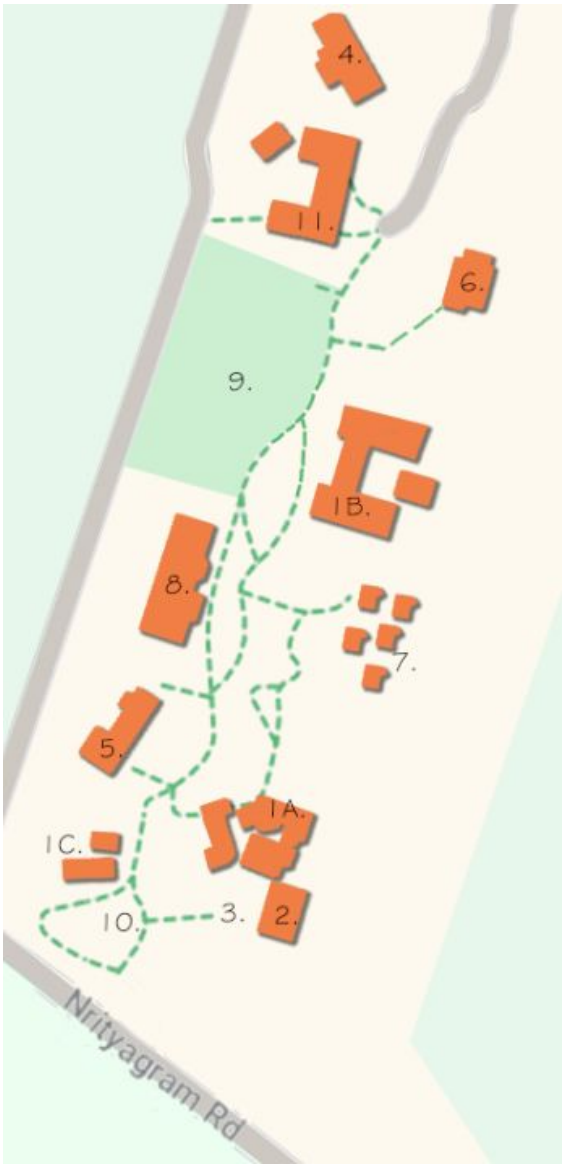
1.2.2 FUNCTIONS:

1.Nrityagram is a gurukul based residential dance school in the form of a dance village. Currently it offers residential courses in Odissi only.

2. The gurus and the students live there in a really sustainable way, they work together in the fields too and grow their own food.

1.2.3 OBJECTIVE OF STUDY;

1. To understand residential dance institutions, which is based on the gurukul concept.
2. To study the building and construction methods based on vernacular architecture.
3. To analyse the spatial kinesthetic elements in the design of campus.



1.2.4 OBSERVATIONS IN PLANNING:

1. Organic masterplan and different types of construction for gurukul of different dance forms

3. To avoid disturbances the throne gurukuls are placed separately.

4. Open Air Theatre has been placed at the end to avoid disturbances in the living and practice areas.

5. Common dining and yoga centre place in the centre which acts as their common Interaction space.

6. An element of discovery is always there in the path and a sense of plattform gurukul.

EVOLUTIONARY APPROACH:

1. Every aspect of the building was decided only with an overview and the Decisions on specifics were taken at the appropriate moment.

2. The act of design and building were not separated and went hand in hand.

3. The workers on the site were given scope for creation which resulted in extraordinary results.

4. There was no subjugation to the standard system which allowed idiosyncrasies and quick making the act of building interesting.

1.2.5 DESIGN STRATEGIES:

1. Sensitivity to local materials:

The existing features in site tend to have a greater Impact on the layout, as their immediate presence tends to have an immediate presence on site.

2. Totality of spatial elements:

Each individual space tightly defined in terms of its sense of enclosure. It arises because of the choice to employ traditional methods of construction and the ability to accurately visualize the finished space by actually being there.

3. Treatment of surfaces, textures and junctions:

Treatments such as these composite arches springing from the Granite base are the outcome of yet creative application of local construction technique and material.

4. The ethics of labour:

Leaving room for craftsmen for adaptation, interpretation and correction. Dealing with their attitude towards labour and human conditions.

Traditional forms of design:

1. Organic Masterplan with the architecture having origin in traditional forms and construction.
2. Different types of construction for different gurukuls.
3. To avoid disturbances gurukuls are placed separate and O. A. T. is kept at end.
4. Common dining and yoga centers are placed at the center.

1.2.6 CONSTRUCTION:

1. Locally available material used for construction like stone, brick, mud, tile and thatch.
2. All external walls are mud plastered.
3. Three types of roof: a. Flat roof- Granite slab b. Mangalore tile c. Thatch pitched roof
4. Granite, a termite free material
5. The process of forming classrooms with simple geometries that would allow spanning stone slab roofs across them.
6. The use of a stone plinth beam to distribute the load in uncertain soil.

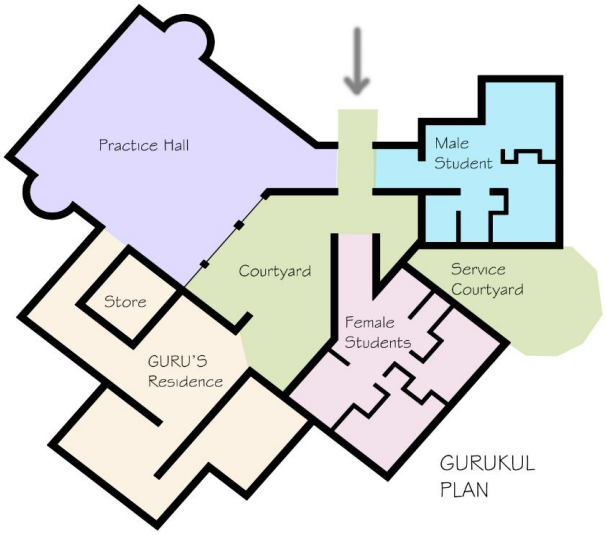
(Fig 32: Detail)

1.2.7 GURUKUL - CLASSROOMS

A hall attached with the residence of the teacher is used for teaching odissi and mohiniattam gurukuls have closed walls with small window openings only for ventilation and light is from the courtyard.

The design of each gurukul consisted of four elements:

1. Guru's residence
2. Male student residence
3. Female student residence
4. Practice hall



These 4 elements were gathered around a courtyard, which became a central gathering point, with the stairs to the roof placed here as an element to sit on and watch the activity of the practice hall. The use of stone slab roofs determined the simple rectilinear geometry of the residences and the guru's house was located where it had a private spillover to the east. The practice hall requiring a larger span, had a palm thatch roof.

1.2.8 COMPONENTS

I. GUEST HOUSES

These round structures, inspired by the yurts of Tibet and Ladakh, have housed some of the greatest maestros of dance and music, who have come to perform at Vasantha Habba.

II. TEMPLE

It is decorated with panels depicting the elements, dance motifs, mudras and designs from costumes and ghungroos. Inside is a granite rock scooped out to hold water and a flame that stays lit.

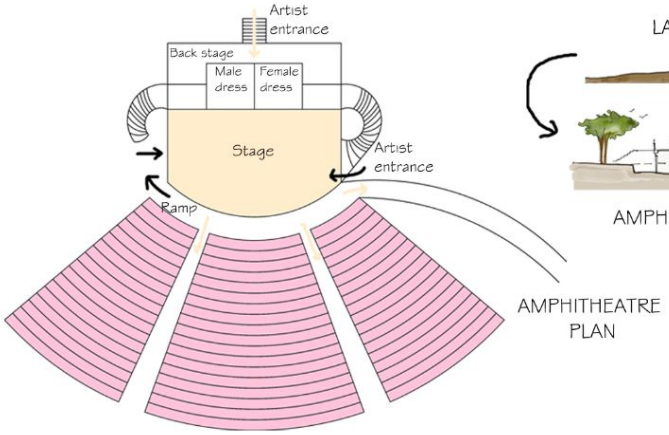
III. YOGA CENTER

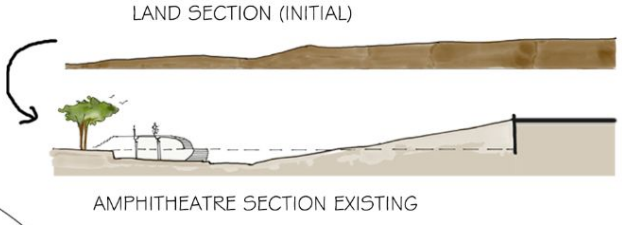
Reminiscent of Stonehenge, the Yoga centre is an open structure attached to the temple. This space is also used for in-house performances under an open sky.

(Fig 33,34 and 35 Guest houses, Temple and Yoga center)

IV. AMPHITHEATRE

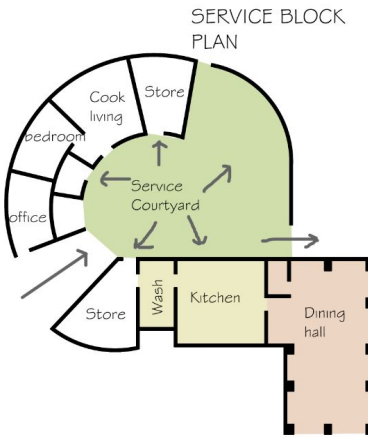
Scooped out of the red earth and built along the lines of Roman amphitheatres, this is one of the most famous structures at Nrityagram. It is here that several thousand people congregate every February for the annual Vasantha Habba.

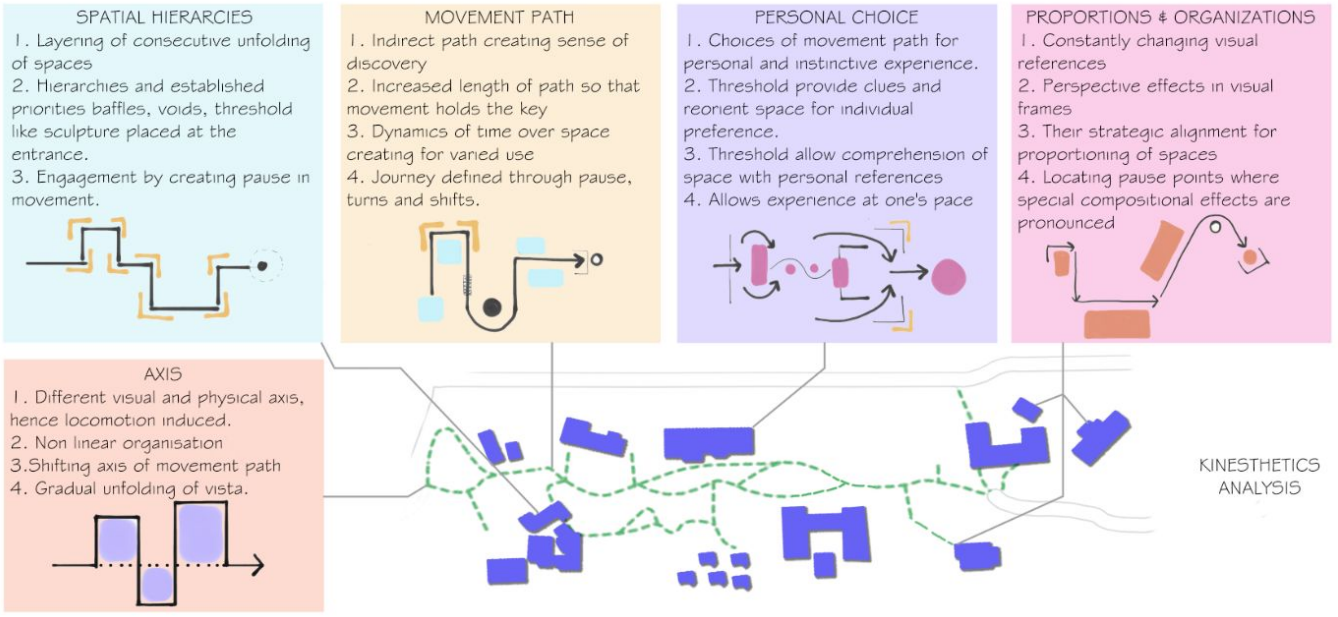




V. SERVICE BLOCK

Built like a reverse 2, this structure is the heart of the village. The entire community eats together here. It contains the common dining hall, kitchen and services and accommodation for the cook. Its plan is in the form of a reverse '2'. One reaches the gurukul by going around the service block to find a Torana which takes us further into the gurukul. The element of discovery is always there in the path and a sense of entry for every gurukul.





1.2.9 Inferences:

Traditional forms of design:

1. The spatial organization of nrityagram is such that the kinesthetic quality is embedded in it which can be experienced by the user distinctively.
2. The planning in the site is organic based on the concept of village.
3. Different types of construction for gurukul of different dance forms.
4. To avoid disturbances the three gurukuls are placed separately, far from one another.
5. Open Air Theatre has been planned at the end, to avoid disturbances in the living and practice areas.
6. Common dining in the service, placed in the centre, which acts as their common interaction space.
7. An element of discovery is always there in the path and a sense of entry for every gurukul.
8. Lack of indoor auditorium areas for any kind of performances.

1.3 SRI SIDHENDRA YOGI KUCHIPUDI KALAPEETAM, KUCHIPUDI, A.P

Located at Potti Sreeramulu Telugu University, Sri Siddhendra yogi kuchipudi kalapeetam is a place where history and culture collide to offer the best of art. This curriculum is one of the numerous courses offered as part of distant education, which aims to spread Indian Art and Culture at academic level as a major theme for research and development worldwide.

1.3.1 Function:

Performing Arts is the primary discipline presented here. It is a cultural academy devoted to maintaining traditional values of Indian art, such as classical dance-Kuchipudi dance, Carnatic voice, and instrumental music such as violin and mridangam.

CAPACITY: The academy is for 200 students.

The faculty group involve:

Principal - Dr. V. Ramalinga Sastry, Senior lecturers - 4, Junior lecturers - 7, Mridangam - 1, Vocal - 1and Violin - 1

1.3.2 OBJECTIVE OF THE STUDY:

1. To understand the courses in kuchipudi and working hours
2. To study the spatial requirement for different activities involved in the learning of kuchipudi dance.

NO.	COURSES OFFERED	TIME	ELIGIBILITY
	KUCHIPUDI DANCE		
1	Certificate course	4 yrs	More than 10 yrs in age
2	Diploma in kuchipudi	1 yr	10th grade pass
3	Diploma in yakshaganam	1 yr	Diploma in kuchipudi pass
4	Diploma in saathvika abhinayam	1 yr	Diploma in kuchipudi pass
5	M.A in dance	2 yrs	Degree in dance
6	PHD in kuchipudi	6 yrs	Degree in dance
	CARNATIC MUSIC		
1	Certificate course in vocal music	3 yrs	More than 10 yrs in age
2	Certificate course in mridangam	1 yrs	More than 10 yrs in age
3	Certificate course in violin music	1 yrs	More than 10 yrs in age

1.3.3 Courses

WORKING HOURS:

08:30 am to 09:00 am - Certificate courses

10:00 am to 01:00 pm - M.A course

02:00 pm to 04:00 pm - Diploma courses

04:30 pm to 06:00 pm - Certificate courses

(Table 3: Kuchipudi courses)

1.3.4 Inference:

1. Corporate type of feeling in the building
2. No open spaces for practice
3. Lack of landscaping and greenery
4. Lack of spatial experience in the building

Type on dance education system involved:

Institutional

(Fig 36a: Guru performing in the studio)

2. SECONDARY CASE STUDY

2.1 THE ALVIN AILEY DANCE SCHOOL, NEW YORK

The Ailey School honors the vision of Alvin Ailey by providing superior professional dance training and artistic leadership. Students of all ages and nationalities come from all over the world to train in our nurturing environment of creativity, passion, and professionalism through an accredited curriculum led by esteemed faculty, staff, and choreographers who produce outstanding dance professionals of tomorrow.

PROGRAMS:

1. Professional Division (Ages 17-25): Offering four full-time training programs, an intensive summer program, and a junior company in residence
    a. Summer Intensive: 6-week session
    b. Ailey/Fordham BFA Program: 4-year program
    c. Certificate Program: three-year program
    d. Independent Study Program: one year program for students between the ages of 17 and 25 who have completed their secondary school requirements
2.Junior Division (Ages 7-17): Pre-Professional Program
3. Creative movement (Ages 3-6): Weekly classes for boys and girls that help develop movement skills, coordination, and creativity.
4. Summer Intensive Program: The 5-week Junior Division session for students 11 to 15, and the 6-week Professional Division session for students 16 to 25, both culminate in exciting performances at the end of the summer.
5. Open Classes: Professional Division dance classes are available on an open enrollment basis for dance students ages 16 and older and for dance professionals.

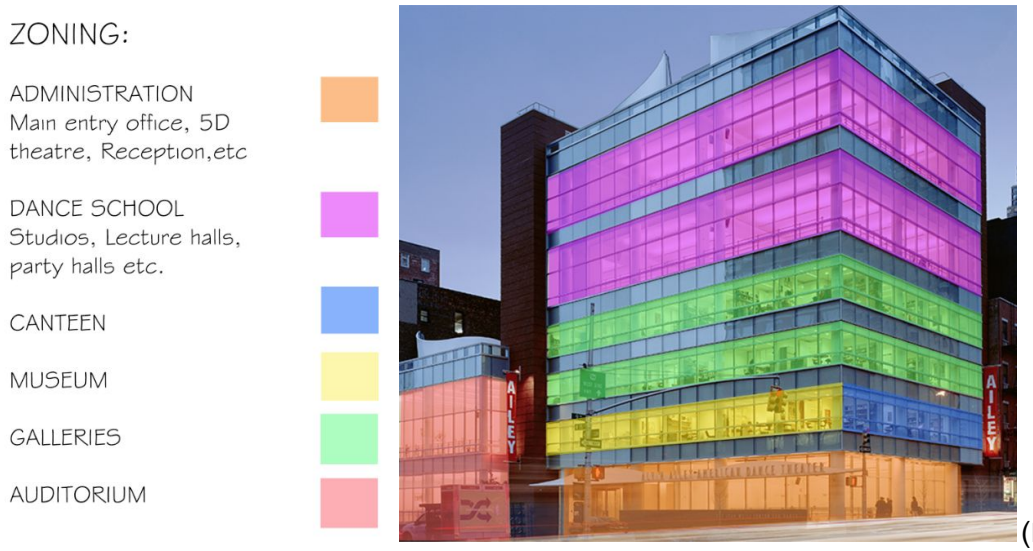
2.1.1 OBJECTIVE OF THE STUDY:

1. To understand the courses in modern dance
2. To study the spatial requirement, zoning and circulation, and flooring systems involved in the dance school.
3. To understand the acoustic, lighting and ventilation strategies used in the school.
4. To study the advanced methods in teaching and learning of dance.

2.1.2 Technology in teaching:

Labanotation has been used primarily to record dance, this system is an “alphabet” system in that symbols represent movement components through which each pattern is “spelled out”.

This enables better preservation and access to labotation scores and teaching materials. Dance documentation has taken on new life here as software allows the viewing on CD-ROM of a particular labanotation score alongside a video recording of a performance of the recorded work.

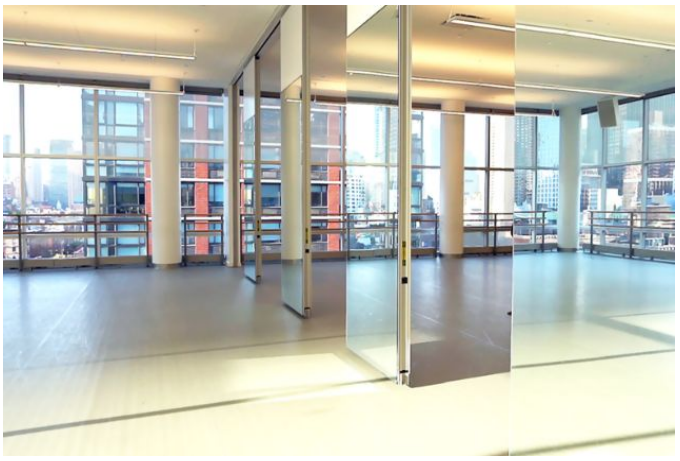


(Fig 36: Vertical zoning)

2.1.3 THE AILEY STUDIOS

16 climate-controlled studios suitable for rehearsals, auditions, and studio showings. Each studio is equipped with a piano, sprung floors, mirrors, and sound systems. These spaces can be modified to host corporate events such as meetings, product launches and cocktail receptions, as well as private events including weddings and birthday parties. In addition, two large classroom spaces are available which can be combined into a board room that comfortably seats 40 people

The Ailey Citigroup Theater is a flexible state-of-the-art performance space that can seat as many as 275 people; it can be used for dance performances, theater productions, screenings, meetings, and more.



(Fig 37: Double sided mirrored acoustical panels used as movable partitions.)

2.1.2 FLOORING:

1.Low profile sprung area elastic sports floor

which is designed to be installed onto a level slab (+/- 3mm over 3m) finished with a hardwood engineered board. This system is constructed to withstand high loadings suitable for large arenas & sports halls.

2. Portable dance floor

a. A portable dance floor typically has a thickness of about 1/2 to 1 inch (1.3 to 2.5 cm) and consists of many 3 ft/3 ft (0.91 m) panels to create the desired size. The edge of the border is trimmed, allowing users to enter the floor safely. The portable panels are either made of oak parquet for indoor use

b. Portable dance floors are widely used here as there is a requirement of an area where permanent dance floor available is not required and can accomodate activities such as parties and weddings or conferences.

c. These are used as a way of using limited space in the school.

(Fig 38: Portable Sprung dance floor)

2.1.3 THE AILEY CITIGROUP THEATRE

A flexible state-of-the-art performance space that can seat as many as 275 people; it can be used for dance performances, theater productions, screenings, meetings, and more.

STUDIO SIZES

Studio Name	Dimensions	Ceiling Height	Notes
LLA	38' x 50'	19'	Not available when The Ailey Citigroup Theater is in use.
LLB	38' x 50'	19'	Not available when The Ailey Citigroup Theater is in use.
LLC	40' x 45'	19'	Sprung Maple Floor. Permanent Projector. Studio converts into a 60 seat studio theater
1A	30' x 45'	14'	
1B	30' x 45'	14'	
1C	40' x 45'	14'	
2A	30' x 45'	19'	
2B	30' x 45'	19'	Permanent projector available
5A	30' x 45'	14'	
5B	30' x 45'	14'	
5C	34' x 50'	14'	Event Space for up to 225 people when combined with 5D
5D	34' x 50'	14'	Event Space for up to 225 people when combined with 5C
6A	30' x 45'	14'	
6B	30' x 45'	14'	Can also be used for photo shoots (Studio 6B contains photo backdrop, rigging points, lighting, and a projector)
6C	34' x 50'	14'	Event Space for up to 225 people when combined with 6D
6D	34' x 50'	14'	Event Space for up to 225 people when combined with 6C

(Fig 39: Theatre)

3. COMPARATIVE ANALYSIS (Table 4)

NAME / FACTORS	KALAKSHETRA, CHENNAI	NRITYAGRAM, BANGLORE	SRI SIDDENDHRA YOGI KALA PEETAM, KUCHIPUDI, A.P	ALVIN AILEY, MODERN DANCE SCHOOL, NY
Spatial logics (Conceptual Site planning)	1. Free flowing plan 2. Developed organically over time as the campus increased.	1. Organic master plan 2. Amorphous pathways 3. Based on village settlement pattern	1. Compact site planning with corporate type of feeling inside the building. 2. No special thought or concept in the site planning.	1. Design of this building is dominated by the site area layout 2. Vertical zoning is done in such a way to provide more spaces in a small parcel of land.
Spatial orders (Theoritical Site planning)	1. The studios, the performance areas, and the prayer hall are spread in the central part of the campus. 2. Administrative areas, hostels, staff quaters etc. cover the peripheral area of the campus.	1. Habitable structures mostly on the east side. 2. The service block is placed in the centre accessible from all the gurukuls.	1. Rigid planning with just 3 blocks of building i.e: Academic, hostel and school. 2. The academic block is placed centrally facing north and the hostle is placed on the east.	1. Vertical zoning involvr stacking of elements in such a way that, Dance studios are place on the upper levels to avoid disturbance from ground level. 2. Multipurpose Spaces incorporated to get more out of minimum space available
Kinesthetics	1. The pathways are oriented creating different visual and physical axis. 2. The spatial hierarchies have embedded locomotion due to various turns and shifts.	1. The pathways are oriented creating different visual and physical axis. 2. The spatial hierarchies have embedded locomotion due to various turns and shifts.	1. The visual and physical axis are same, hence lacking kinesthetic experience as no visual frames are created.	1. The visual and physical axis are same, hence lacking kinesthetic experience as no visual frames are created. 2. Hierarchy of spaces created vertical give different experience as one travel up
Climatology	1. The open air theatre was placed towards the north of the campus. 2. Major maintanance spaces towards the east. 3. Trees placed on the south side to increase shading.	1. Green spaces are mostly towards the south, to provide shading.	1. North facing academic block, oriented NE-SW. Hostel block situted in the west facing east to increase morning sun exposure.	1. South facing block to capture maximum sunlight possible in the upper levels where the dance studios are placed .
Architectural Style/ features	1. Koothambalam style architecture for auditorium	1. Vernacular architecture using localluy available majorly stone masonry with thach or slate roofing	3. Duplication of traditional style of faced design in modern materials, which is not so appealing in terms of aesthetics.	1. Contemporary architecture 2.Skin and bone system type of building using steel, brick and galzing.
Practice spaces (Dance studios)	1. 2 types: 8m x 4.5 m 10 m x 7.5 m Each studio used for teaching vocal and dance	1. Practice spaces are along with the guru residence, combined with student residences, following gurukul system.	1. Studios of basic 9m x 5m, repeated throughout the academic block.	1. Whole floor plate is assigned for dance studios and other purposes. 2. Customized area of spaces can be achieved as per the requirement
Performance spaces	1. Based on koothambalam concept, the auditorium is designed as a sacred area and the sanctum of the temple is the stage. 2. Stage is designed on the basis of Natya shastra	1. Lack of indoor performance space 2. Amphitheatre is designed making use of the natural topography of the site and place at the end of the campus.	1. Lack of indoor performance space 2. Open air stage is provided in the centre of the campus for performances.	1. Alvin audiditonium, providede for performance is kept seperate from the main block
Acoustics	1. All studios are isolated and and palced far from one and other and buffer spaces are filled with trees	1. Cloister dome like structure do not allow echo of sound in all areas.	1. No acoustical considerations are followed, since side to side studios are provided.	1. Studios placed on the top levels 2. Acoustical double sided mirrored panels are used for partitions.
Lighting and ventilation	1. Passive technlogy used for lighting and ventilation in all the areas 2. No air conditioning necessary except for auditorium.	1. Passive technlogy used for lighting and ventilation in all the areas 2. All blocks placed far from each other to avoid shading and blockage of wind	1. Corporate type of feeling inside the building 2. Light do not reach the centrally place corridors.	1. South facing block to capture maximum sunlight possible in the upper levels where the dance studios are placed .
Flooring	1. Sprung floor is used for performance spaces 2. Polished cement finish in the practice areas.	Polished cement finish in the practice and performance areas.	Polished cement finish in the practice and performance areas.	1. Low profile sprung floor for permanent dancing areas 2. Portable sprung floor for areas with multi functions.

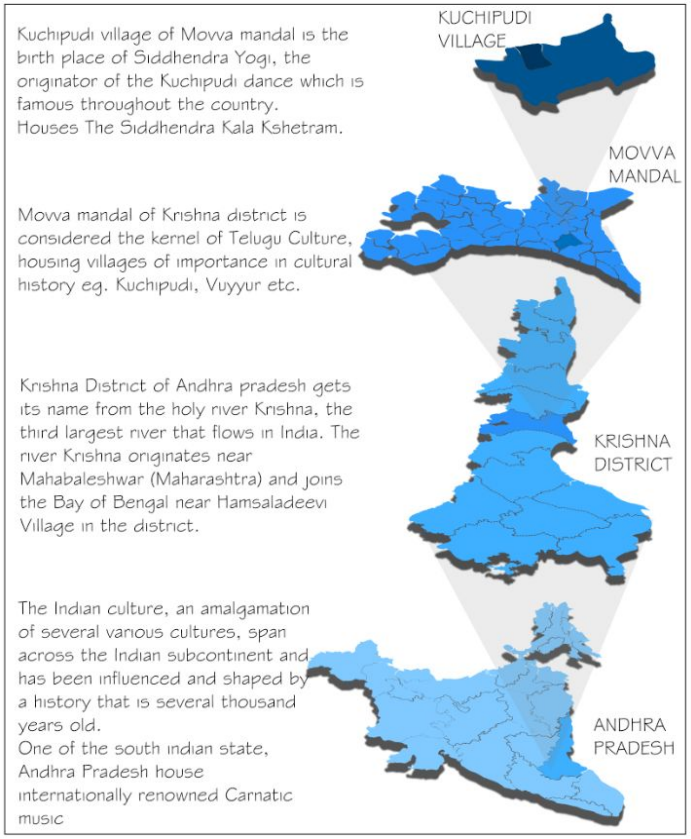
SITE ANALYSIS

1. Site details :

1.1 Location

Looking to revive Kuchipudi, the Andhra Pradesh government is planning to set up an academy dedicated exclusively to the promotion of the iconic dance form at home.

The state government has proposed to build the 'Kuchipudi Natyaramam' (Kuchipudi dance academy) at Kuchipudi village in Krishna district in coastal Andhra, where the dance form was born more than six centuries ago.

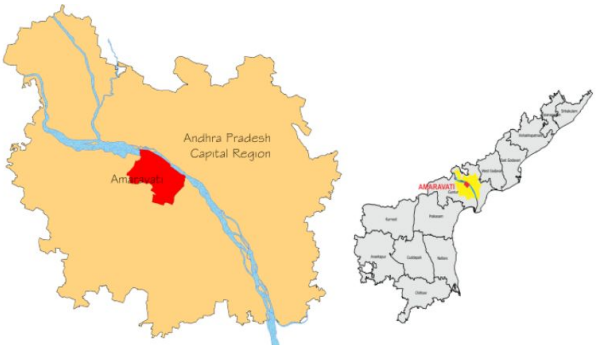


Andhra Pradesh Capital Region - is the Megalopolis area surrounding Amaravati, the new capital city of Andhra Pradesh and includes major ancient cities like Kuchipudi village.

Amaravati is a proposed and planned Capital city as the Geographical Center of Location for the Andhra Pradesh state.

Map showing Andhra Pradesh Capital Region spread across Guntur and Krishna districts with the city of Amaravati on the banks of River Krishna

(Fig 40 : APCRDA) and (Fig 41: AP Map)



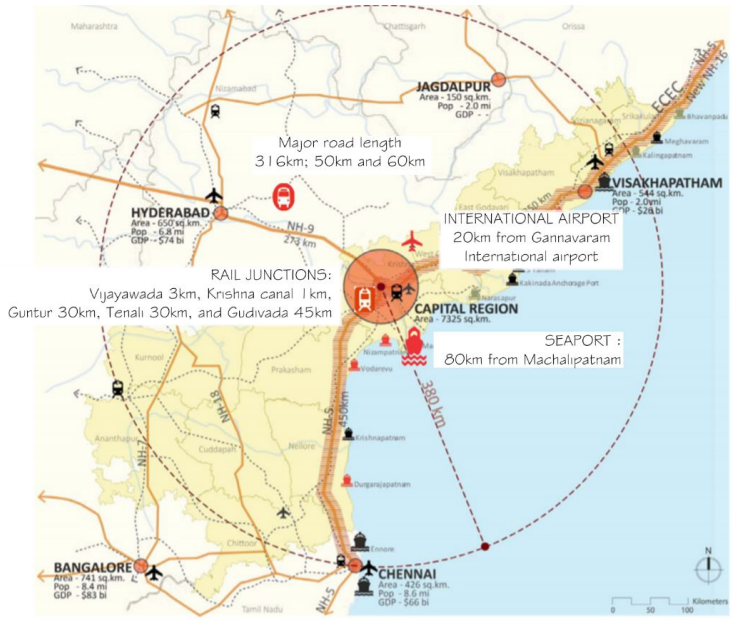
1.2 Ownership

Site is located in Movva mandal of Machilipatnam revenue division. It is one of the villages in the mandal to be a part of Andhra Pradesh Capital Region, under The Andhra Pradesh Capital Region Development Authority (APCRDA) Act, 2014.

1.3 Neighborhood and transport

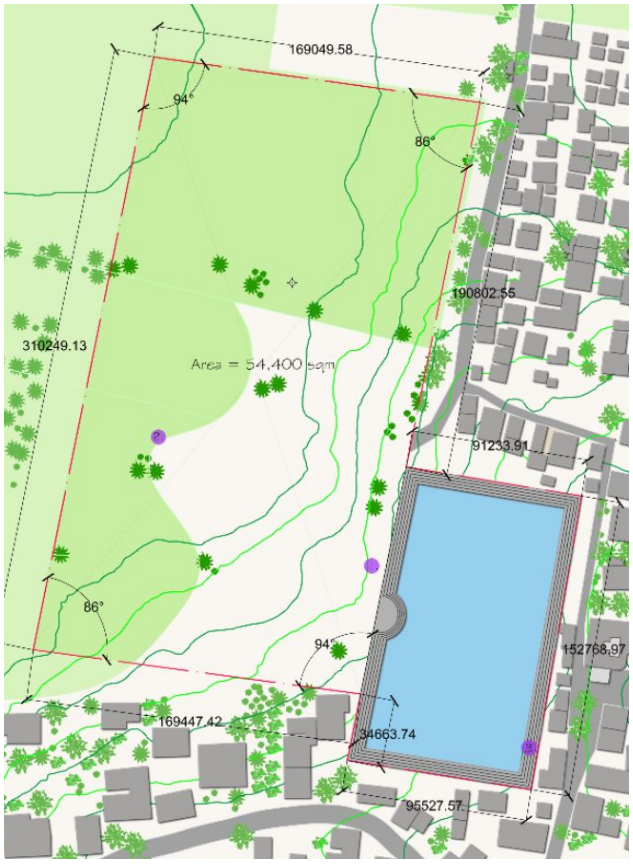
This place is the border of Krishna district and Guntur district. Kollur is west towards this village. Machilipatnam is the nearest town to Kuchipudi, 24 kilometres (15 min) away.

PROXIMITY AND CONNECTIVITY

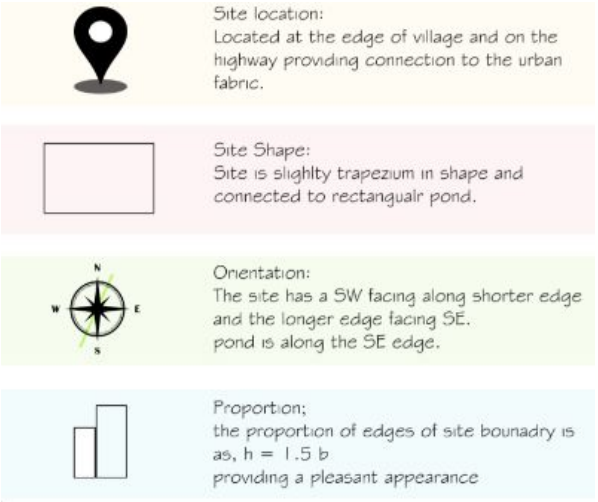


(Fig 42: Connectivity map)

1.4 Site information

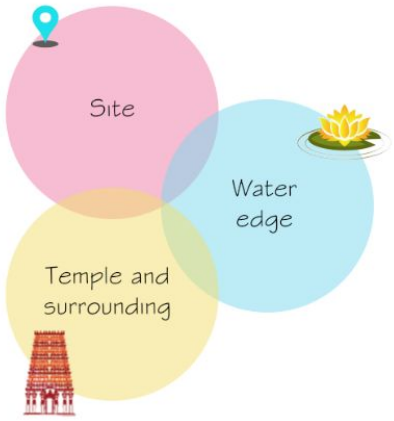


The proposed kuchipudi natyaramam project site is a land parcel of around 11 acres (around 44515.4 square meter). The project site has an abutting road, namely Kowthavaram nidumolu illuru road or illuru - kuchipudi road. It has a lake and a saint siddhendra yogi temple.



(Fig 43 : Site plan)

1.5 Site Character



Site is located on the opposite shoreline of the temple and its surrounding consisting of 'Kuchipudi agramam' - residence cluster of kuchipudi dancers.

Location of the site is perfect for a dance institute as it lies on the edge of the village and is surrounded by agricultural land and a pond on one side. This improves the privacy of the area as it is isolated from the rest of the village. As the site lies close to the highway road, it is accessible by nearby areas.

Natya Pushkarini : is an amphitheatre developed around a lily pond.
This is a part of dance institute serving as space for meditation and sadhana (peaceful practice) of dance or music. Includes pavilions and steps. Effort is to preserve the resource.
Ponds help maintain the ground water level in the area.

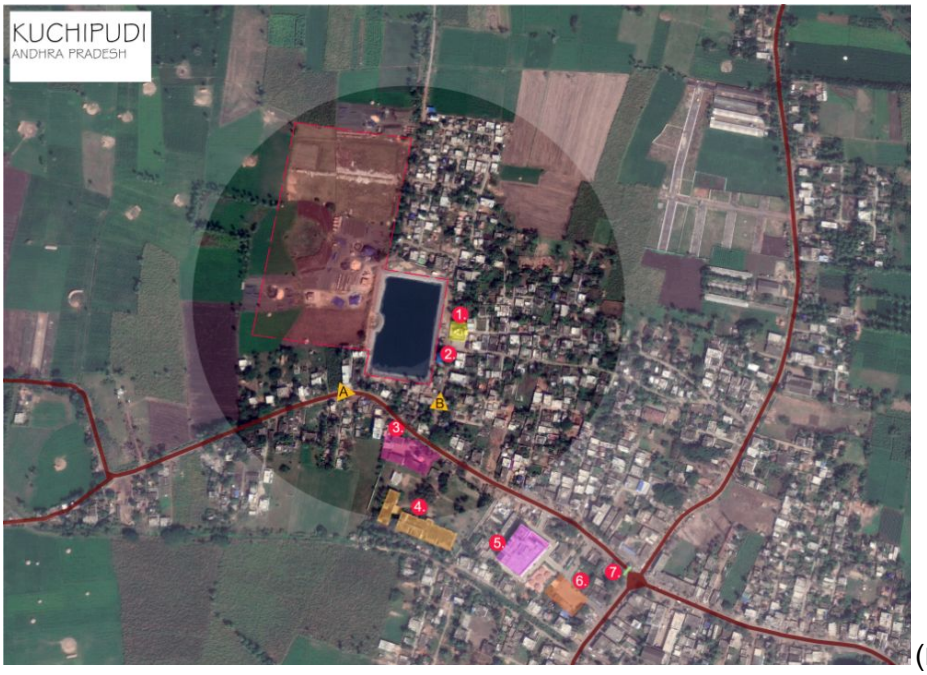
(Fig 44 : Natya pushkarini and site photographs)

2. CONTEXT (MAN MADE FEATURES ON SITE)

2.1 LANDMARKS AND INFRASTRUCTURE

The village of Kuchipudi is about 6.4 km from the Movva Mandal and about 25.6 km from the nearest significant town of Machilipatnam. Hyderabad, the capital of Andhra Pradesh, is at a distance of 325 km from the village of Kuchipudi.

Landmarks in the whole region of Kuchipudi are very famous among the tourists who throng the place in search of lost arts and traditions.
Kuchipudi is a developing village, with recent development in infrastructure like roads.



(Fig 46: Key plan)

Sri Bala Tripura Sundari Sametha Ramalingeswara Swamy temple

Sri Siddhendra Yogi Temple on the bank of natya pushkarni pond

School of Kuchiudi village develoed by Silicon Andhra

Sri Siddhendra Yogi Kuchipudi Kala Peetham

Sanjivini multi speciality hospital by silicon andhra

Kuchipudi bus stand by Andhra Pradesh state road transort corporation

Main inter city road connecting Vijayawada region and Guntur region

Road leading to Sri Bala Tripura Sundari Sametha Ramalingeswara Swamy temple from main road

Welcome gate to Kuchiudi village

(Fig 45: landmark)

2.2 SURROUNDING BUILDING TYPOLOGY

As Site lies on the edge of the village, it is mostly surrounded by residence buildings and very few public/ semi public buildings. Most of the infrastructure and public buildings fall in the central part of the village at the gate.

(Fig 47:Building typology and kuchipudi agraharam)

2.2.1 SITE CONTEXT (BUILDING AND USER) (Table 5: Population detail)

Total no. Population	6788
Total no. of houses	1903
Female population	51.4 %
Total literacy rate %	63.5 %
Working population	49.1 %
Child (0-6) population	619
Girl child (0-6) population	53.2 %

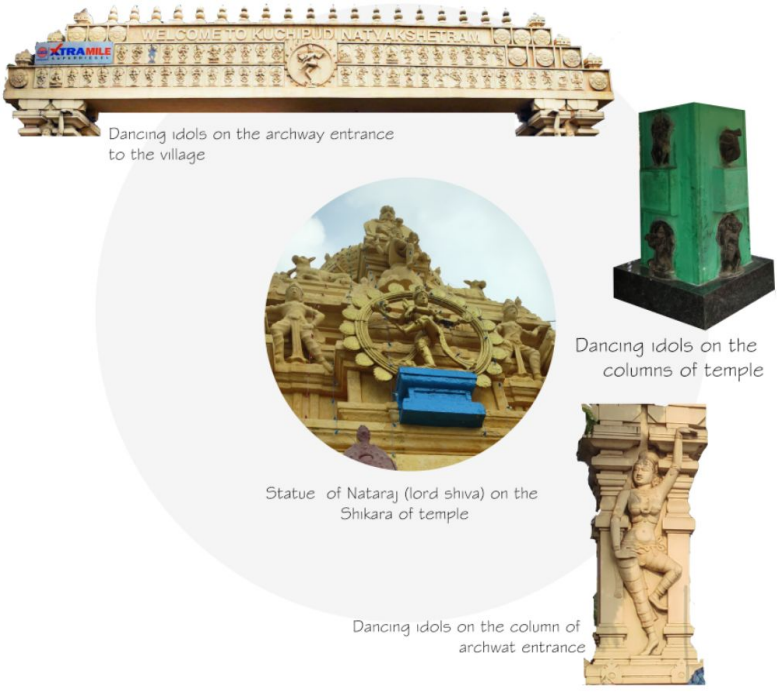
Some of the traditional families, who reside here in Agraharam are following :

A. Chitta
B. Bhagavatula
C. Pashupati
D. Darba
E. Vedantam
F. Joshula
G. Harri
H. Mahankali
I. Yedushilpa

These families constitute about 0.8% of total Kuchipudi population according to recent census.

2.2.2 DANCING IDOLS

Kuchipudi gets its Sanskrit derivation of the name from Kusalava-Puram which means Bards and Dancers.



Association to strong history in dance can be seen even today at this place, eg: Dancing idols are used intensively at various building elements.

It is also believed that several archaeologists have been able to extract a number of Buddhist statues in ruins around this place in several dance forms. It isn't a very likely thing to witness Buddhist monks indulge in dancing, but it is believed to be the power of this place that imposes influences on them as well.

(Fig 48: Dancing idol in Kuchipudi village)

2.2.3 NOTABLE FEATURES IN BUILDING CONSTRUCTION (SURROUNDING)

(Fig 49: Notable feature in Kuchipudi village)

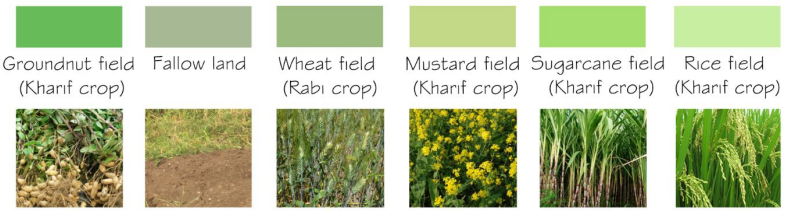
3. NATURAL ELEMENTS ON SITE

(Fig 50:Base map)

3.1 VEGETATION

3.1.1 Crops on site and neighbourhood

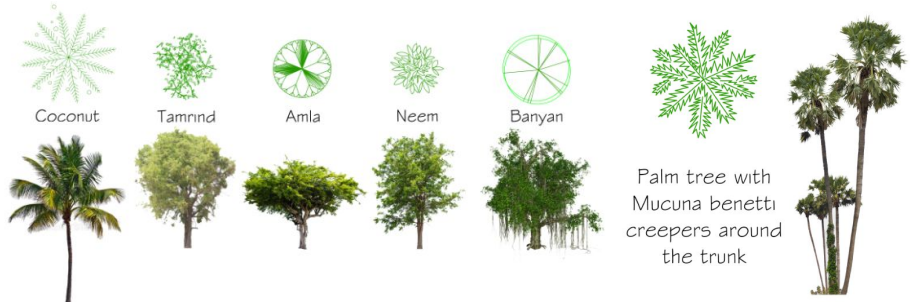
Site is surrounded by agricultural land cultivation Kharif crops between June/July to September/ October coinciding with SW monsoon season and Rabi crop (wheat) cultivated between November/December to February/March. Site area house Fallow land which is being used for cultivation but is temporarily allowed to rest or un-cropped



(Fig 51:vegetation crop)

3.1.2 Trees on site and neighbourhood

Vegetation cover of trees, shrubs, and herbs covers at least 5% of the total surface area of the site. The above mentioned trees are predominant to this particular area.



(Fig 52:vegetation tree)

3.2 GEOLOGY AND HYDROLOGY

3.2.1 Soil composition (Table 6)

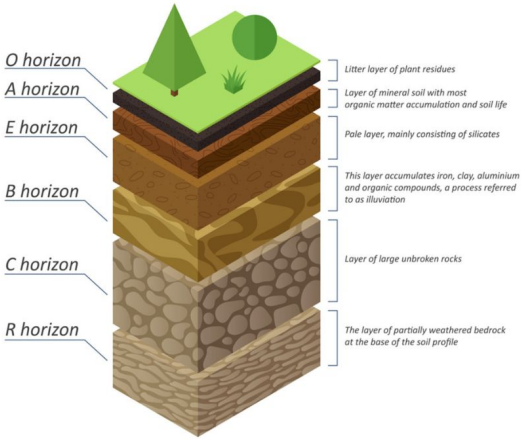
The predominant soils in this area are deep Black clayey soil, Clayey to Gravelly clayey moderately deep dark brown soils.

This area does not fall under salt affected soil or water logging region of Krishna District.

Depth of Water level: 2.60 metres

Depth below the existing ground level (metres)	Visual Identification of soil	I.S. Soil Classification	Natural Moisture Content (%)	Dry Unit Weight [KN/m³]	Recorded SPT value (N)	Un confined Compressive Strength, q_c [KN/m²]	Shear Parameters		Safe bearing Capacity [KN/m²]
							Cohesion C [KN/m²]	ϕ (deg)	
0.00-1.70	Brownish plastic silty clay	MH-CH	24	16.00	UDS	84	42	0	90
1.70-3.00	Brownish clayey silty sand	SC-SM	19	16.50	24	-	28	30	175@2.50M
3.00-4.00	Brownish sandy silty clay	MH-CH	22	16.20	UDS	174	78	4	175
4.00-5.00	Brownish sandy silty clay	MH-CH	25	16.20	26	204	98	4	210
5.00-5.70	Brownish sandy silty clay	MH-CH	22	16.50	UDS	224	106	8	225
5.70-8.00	Yellowish brownish silty fine to medium sand	SM-SP	15,17	16.50	35,44	[Es = 550 kg/cm²]	0	36	250
8.00-15.00	Yellowish brownish silty fine to medium sand	SM-SP	21	16.50	>50	[Es = 600 kg/cm²]	0	38	275
15.00-15.45	Yellowish brownish silty fine to medium sand	SM-SP	16	16.30	44	[Es = 500 kg/cm²]	0	34	225

q_c = Unconfined compressive strength
Es = Modulus of Soil



3.2.2 Underground water table

GROUND WATER LEVEL

Pre monsoon = 2m to 5m

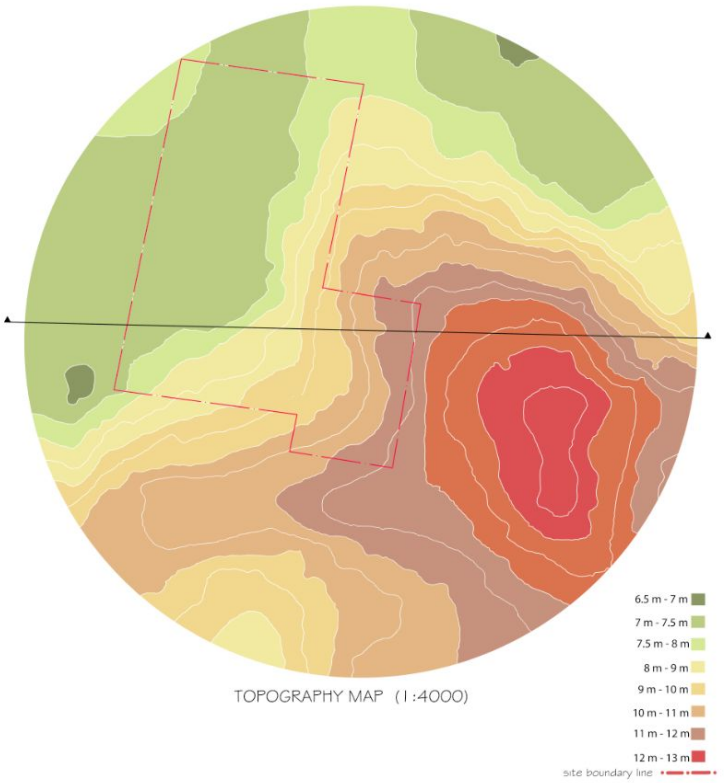
Post monsoon = <2m

Ground water levels fluctuate considerably in response to the recharge and draft conditions of ground water reservoir.

(Fig 53: Ground composition)

Building construction can be done without any complex or specific considerations, since the oil quality and water level are optimum for any kind of foundation required.

3.3 TOPOGRAPHY



Inference based on the topography map of the area:

It is observed that the majority of the area is covered with level to nearly level slope. Mostly flat land with less 5.2% elevation difference.

Moderately sloping areas are observed on the edge of the area boundary on the east side of the plot.

No hindrance due to any undulation of any kind as the site area is mostly flat and hence flexible site planning can be done.

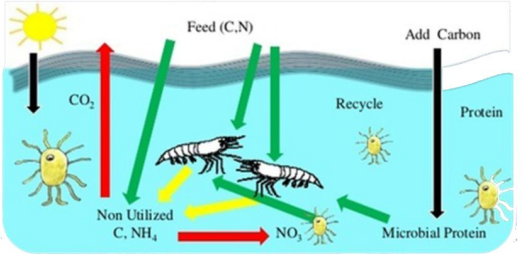
(Fig 54: Topography map and section)

3.4 NOTABLE FEATURE - NATYA PUSHKARINI

In 2017, Vedantam Pond of Kuchipudi Village was developed into a Natya Pushkarini as a part of Kuchipudi Natyramam project. At present this pushkarini is leased out for aquaculture.

Aquaculture here involves breeding, rearing, and harvesting of fish, shellfish, algae, and other organisms to treat saline water, providing fresh water for irrigation purposes to neighbouring agricultural lands.

(Fig 55 : Vedantam pond and natya pushkarini)

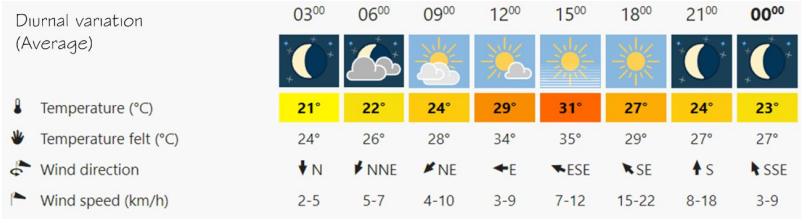


Working of aquaculture in water purification

(Fig 56: Aquaculture pond)

4. CLIMATIC ANALYSIS

Tropical climate conditions with extreme hot summers and cold winters prevail in this District.



The period of April to June is the hottest with high temperature in May. The climate of the district is moderate and characterized by tropical rainy climate with aggressive summer.

(Fig 57:Diurnal variation)

The period from December to the middle of February is generally the season of fine weather. The summer season is from March to May.

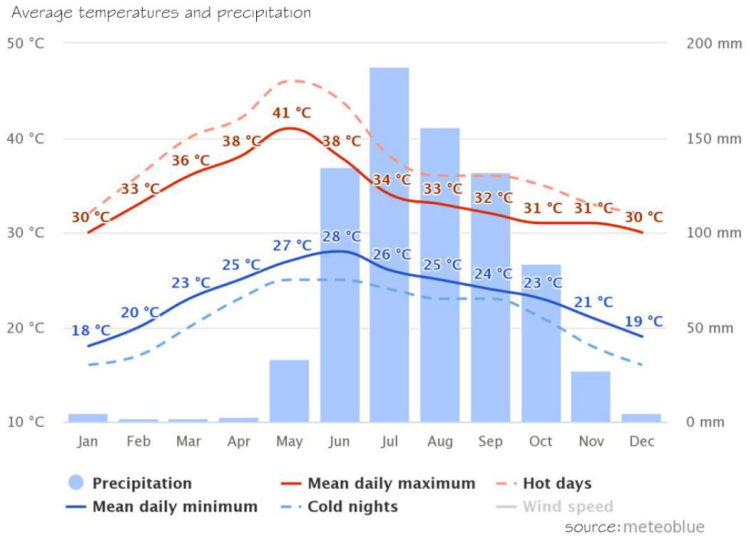
This is followed by monsoon period from June to September, the post monsoon from October to December and the winter season from January to February. The monsoon usually breaks in the middle of June and brings good rains up to the middle of October.

(Fig 58:Season map of the region)

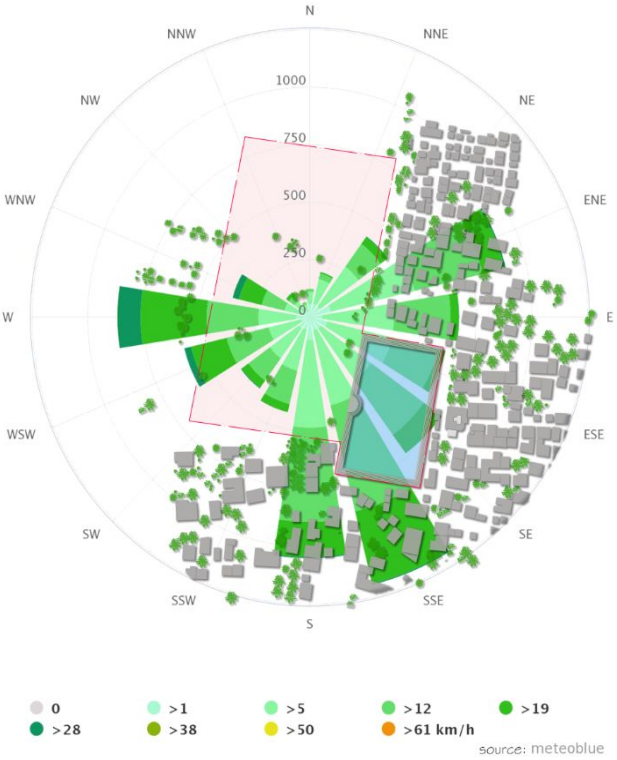
The mean daily maximum temperature in the District is about 38°C in May and the mean daily minimum temperature is about 20°C in December/ January. Temperature in the District begins to rise from the middle of February till May. With the onset of southwest monsoon in June, the temperature decreased to about 20°C and is more or less uniform during the monsoon period.

HUMIDITY

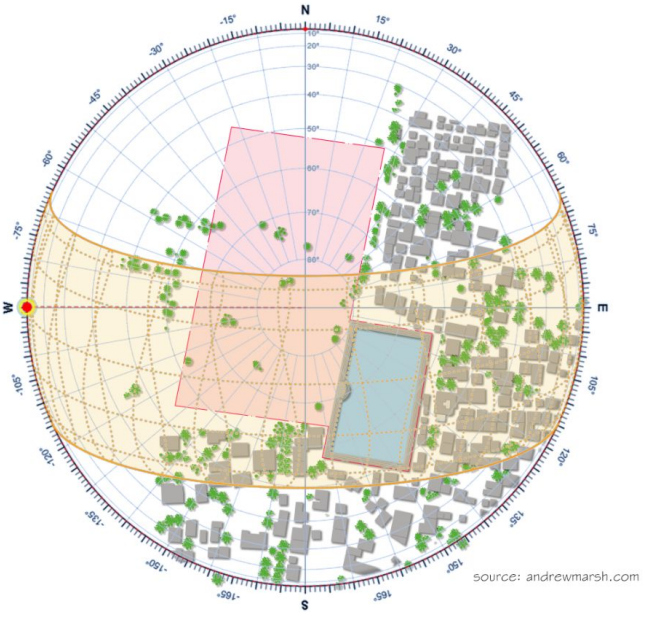
The relative humidity in the District is of the order of 80% in the mornings throughout the year, whereas in the evenings the relative humidity varies from about 70 to more than 80% (CGWB, 2013). The average annual rainfall of the district is 1011.2 mm, which ranges from nil rainfall in January to March.



(Fig 59: Temperature and precipitation graph)



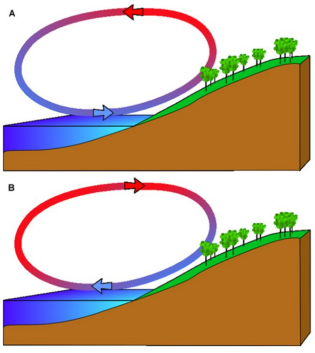
(Fig 60: Wind flow)

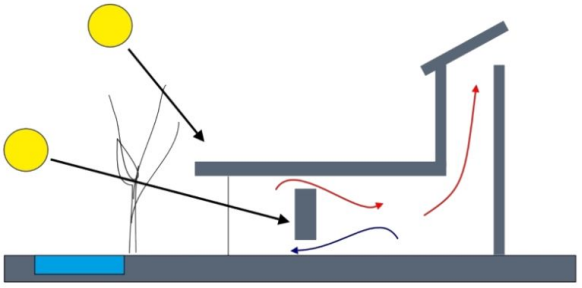


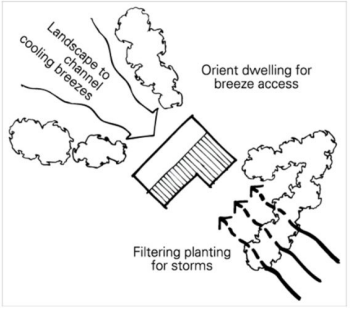
(Fig 61:Sunpath)

4.1 INFERENCES IN TERMS OF STRATEGIES THAT CAN BE USED ON SITE

1. Air from the pond to be directed into the whole site by radial planning and creating bottlenecks at desired locations
2. Winter winds from west to be filtered by providing trees as the west side land is agricultural some of the wind intensity is reduced.
3. Relatively straight-forward design solutions such as brise soleil can be used to allow low-level winter sun to enter a building, but to shade higher, summer sun. Other solutions, such as planting deciduous trees in front of windows can be effective as leaf cover in the summer will shade glazing from solar radiation, whereas in the winter sunlight is able to pass between the bare branches and enter the building.
4. Water body on SE edge of the plot provides cooling in summer days and heating in nights.







5. SERVICES, ZONING BYE LAWS AND OVERALL INFERENCES

5.1 BASIC ZONING BYE LAWS

Based on : Municipal Administration and Urban Development Department - Model Building ByeLaws 2016 of GoI – Andhra Pradesh Building Rules, 2017

These Rules may be called 'The Andhra Pradesh Building Rules - 2017'.

They shall apply to the building activities in the areas falling in:

(a) Andhra Pradesh Capital Region Development Authority [APCRDA] except in Capital City Area,

(b) All Metropolitan Region Development Authorities,

(c) All Urban Development Authorities,

(d) All Municipal Corporations,

(e) All Municipalities,

(f) All Nagar Panchayats,

(g) Gram Panchayat areas covered in Master Plans/General Town Planning Schemes notified under Andhra Pradesh Town Planning Act,1920 and (h) Industrial Area Local Authority (IALA)/Special Economic Zone (SEZ) notified by Government.

All rules and regulations are considered for Cultural and educational typology of building for above 50,000 sqm area.

5.1.1 STATUTORY NORMS

HEIGHT - Maximum ht = 18m **Height Exemptions:** The following appurtenant structures shall not be included in the height of building covered under Building Rules.

(1) Roof tanks and their supports not exceeding 1.5m in height.

(2) Ventilating, air conditioning and lift rooms and similar service equipment.

(3) Stair covered with Mumty not exceeding 3.00m in height.

(4) Chimneys and parapet walls not exceeding 1.50m.

F.A.R (Floor area ratio)

Not to include in FAR calculations

(a) Machine room for lift on top floor as required for the lift machine installation.

(b) Mumty over the staircase on the top floor.

(c) Watch and ward cabins of area not more than 4.5sqm at the entry point.

(d) Entrance porches/canopies in high rise buildings.

(e) Architectural feature on ground or any other floor including rooftops.

No.	Area Statement	Area (Sq.m)
1.	Plot Area	54500.00
2.	Deduction for Road widening area:	0
3.	Gross plot area	54500.00
4.	Recreational ground as per rule:	
	A) Amenities (5% of net gross area)	2725
	B) Open spaces (10% of net gross area)	5450
5.	Net plot area [3. - 4.]	46325
6.	A) Internal roads (12% of net plot area)	5559
	B) Parking (12.5% of net plot area)	5790.62
	C) Total [6. A) + 6. B)]	11349.62
7.	Permissible F.S.I	1.85 on Net Plot
	A) Additional F.S.I with premium	-
	B) Total F.S.I	1.85 on Net Plot
8.	Permissible Built Up Area	85701.25
	A) Additional Built Up Area with premium	-
9.	Permissible ground coverage	0.35 on Net Plot
10.	Permissible Ground Coverage Area	16213.75
11.	Permissible Height of building	15.00m
12.	Practical Construction Area	16213.75

GROUND COVERAGE (Table 7: F.A.R Statement) is considered on the entire site area including the area demarcated for statutory reservations. Open Staircases , utility structures, elevation features and covered entrance porches are all considered in ground coverage.

FAR (Floor Area Ratio) and ground coverage to be calculated as per norms specified and no relaxation/deviation in the same is entertained. And no additional F.A.R available with premium.

OPEN SPACES

Following Areas need to be provided in the layout of plot:

10% open space (NBC 2016 Vol.1 8.3), 25% parking (The Andhra Pradesh Building Rules - 2017) of gross plot area.

M.O.S (Marginal open spaces)

Front = min 9m and Setback from other sides = min 6m

5.2 INFRASTRUCTURE AND SERVICES

The site area falls in Kuchipudi village. It is a developing village with a very minimum infrastructure and services availability.

Majorly all the requirements should be provided within the campus and tapping off of electricity and water connection is proposed. Sewage lines are not available, hence an on-site STP (sewage treatment plant) should be provided.

Table provides information regarding the observation and inputs needed in terms of infrastructure and services.

(Table 8: infrastructure and services)

Infrastructure	Observation/	Inputs
Water connection	Connection of water is taken from Satiguda dam (source at 100 km)	Can tap into the connection
Stormwater discharge point	Canals for storm drain are provided in the surrounding	Can direct to those

Infrastructure	Observation/	Inputs
Sewage	No drain is available and on site common STP is proposed by the developer	Connection to on site common STP service must be taken
Power	33/22 KV power tap off from service provider tap off point at substation and terminated at road in front of the site boundary.	On site substation must be provided
Road	Current access is a private approach road connected to PWD state highway	Need of 18 m private approach road
Railway station	Vijayawada – 10 km (SW) approx	-
Nearest highway	NH 165 Machilipatnam highway	-
Nearest airport	Gannavaram airport 37.5 km (SE)	-
Nearest Hospital	Sanjeevini Hospital, 5 km	-
Nearest Fire station	Gudivada Challapalli Kothapalem Fire Station - 5 km	-

5.2.1 BASIC MAP OF SERVICES AND INFRASTRUCTURE INPUTS NEEDED

(Fig 62:Infrastructure and service map)

LAND DETAILS

No.	Particular	Detail
1.	**Name of the Owner**	Andhra pradesh government
3.	**Village** **Taluka** **District**	Kuchipudi Movva Krishna
4.	**Sanctioning authority**	APCRDA (Andhra pradesh capital region development authority) Machilipatnam revenue division
5.	**Status of Plot**	Open Plot
7.	**Zone of Plot**	Agricultural zone (current)
8.	**Plot is affected by**	
	1. Nala/ Drainage	X
	2. Pond	√
	3. H.T Lines	X
	4. L.T Lines	X
	5. Poles / Transformer/ Substation	X
	6. Railway Line	X
	7. Airport or Defence Establishment	X
	8. National Highway	X
	9. Heritage structure	X
	10. Any Industrial establishment	X
	11. well/ rights of well	X
	12. Primary nalla survey	√
	13. fencing around the plot	X
	14. Burial place [cemetery]	X
	15. slum adjacent	

ENVIRONMENTAL SETTING (Table 9 and 10)

Particulars	Details
Soil	Mostly black sandy soil with more clay contents, but soil strata is not uniform
Site Elevation above MSL	13m amsl
Topography	Undulating terrain
Present land use	Agriculture fallow land
Extent of Plot	54,500 Sq.m. (13 Acres)
Water body (Major)	Krishna river - 80km
Archaeologically important places	Nil in 10 Km radius
National parks / Wildlife Sanctuaries	Nil in 10 Km radius
Seismicity	Seismic zone-III
Defense Installations	Nil in 10 Km radius
Hills / valleys	Nil in 5 km radius
Reserved / Protected Forests	Nil in 10 Km radius

5.3 INFERENCES

No special zones in the premises of the site boundary that is for around 10km radius.

So flexible planning can be done without any imposed restrictions.

AREA PROGRAMMING (Table 11)

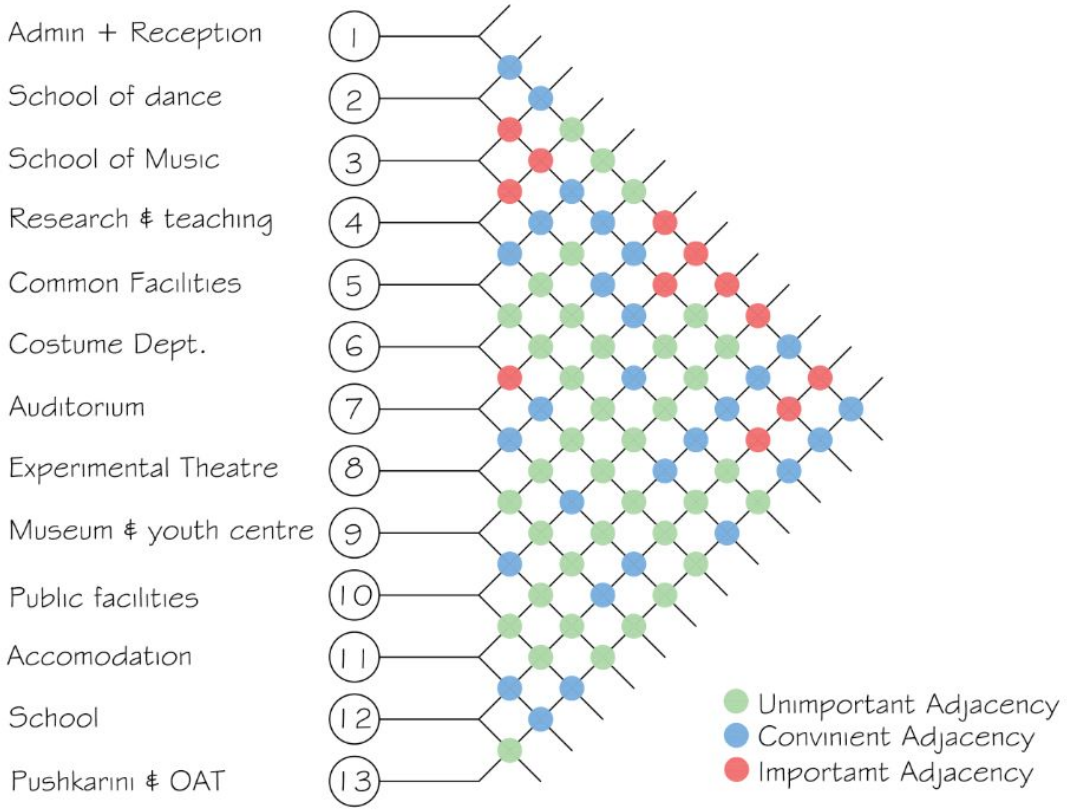
COMPONENT	SPACES	CAPACITY	ESTIMATED AREA	REMARKS
1 ENTRANCE	Entry/ Exit			vehicular 1 & pedestrian 2
	Guard room	5-6	16 & 12	vehicular 2 & pedestrian 2
			28	Sub-total
2 ADMINISTRATION	Director's office	1	30	
	Director's section office	1	20	
	Secretarial support	12	40	
	Visitor's room (2)	8	40	Each room for 4
	Technical manager	1	20	
	Planning assistants	4	30	
	Publicity and Public relations	8	45	Common open & storage
	Mailing section	2	20	
	Accounts officer	1	15	
	Financial advisor	1	15	
	Accounts office	8	45	Common open & storage
	Safe vault		10	
	Cashier's counter	20	20	
	Maintanence office	5	35	
	Technician station	5	20	Personl lockers
	Gardener's room	20	15	Personl lockers
	Janitor room	20	15	Personl lockers
	Toilet	1	75	
			500	Sub-total
3 VISITOR ADMIN AND RECEPTION	Reception desk	2	5	
	Waiting	10	40	
	Manager office	1	15	
	Cloak room		15	
	Ticket counter	2	10	for shows etc.
	Toilet		40	
			115	Sub-total
4 A. SCHOOL OF DANCE	Dance studio store rooms	10	200	20sqm each
	Individual classrooms:			
	a. certificate course	12	1050	15 nos. 70sqm each
	b. M.A course	9	500	10 nos. 50sqm each
	c. Diploma courses	9	600	12 nos. 50sqm each
	d. PHD	5-6	200	5 nos. 40sqm each
	Changing room	5	7.5	1.5sq m each
	Toilet :			
	a. female	5	17.5	3.5sqm / person (1200 peak)
	b. male	5	17.5	3.5sqm / person (1200 peak)
	Physically chalenged	1	5	
	Lecture hall	50	325	5 nos. 65sq m
	Locker room		40	
	HOD office	1	20	
	Section office	10	80	Including assistants
	Staff room	50-60	120	divided into 3-4
	Staff cubicles	10	150	Seniour gurus(15sqm each)
	Staff Toilet :			
	a. female	2	7	3.5sqm / person (1200 peak)
	b. male	2	7	3.5sqm / person (1200 peak)
	Meeting room	20-30	60	
	Recording studio		100	5nos. 20sqm each
	Music studio		100	5nos. 20sqm each
	Make up studio		100	5nos. 20sqm each
	Lighting studio		40	equipment and store
			3746.5	Sub-total

A. SCHOOL OF MUSIC	Music studio store rooms	10	200	20sqm each
	Individual classrooms:			
	a. certificate course	12	400	10 nos. 40sqm each
	b. Diploma courses	9	150	5 nos. 30sqm each
	Changing room	2	3	1.5sq m each
	Toilet :			
	a. female	5	17.5	3.5sqm / person (1200 peak)
	b. male	5	17.5	3.5sqm / person (1200 peak)
	Physically chalenged	1	5	
	Lecture hall	50	325	5 nos. 65sq m
	Locker room		40	
	Instrumental storage room		250	5nos. 50sqm each
	Music studio		200	10nos. 20sqm each
	Recording studio		100	10nos. 20sqm each
	Section office	10	80	Including assistants
	Staff room	20-30	60	
	Staff cubicles	3	75	Seniour gurus(15sqm each)
	Staff Toilet :			
	a. female	2	7	3.5sqm / person (1200 peak)
	b. male	2	7	3.5sqm / person (1200 peak)
			1937	Sub-total
5 RESEARCH AND TEACHING	Library:			
	a. Reading area	150	250	
	b. Admin	5-8	110	
	Mini Filming section	8	120	3 nos. 40sqm each
	Audio library	8	120	3 nos. 40sqm each
	Video library	6-7	150	Stacking + viewing areas
	Printing department	10	150	common open + equipment
	Toilet :			
	a. female	2	7	3.5sqm / person (1200 peak)
	b. male	2	7	3.5sqm / person (1200 peak)
			914	Sub-total
6 COMMON FACILITIES	Workshop area	30	330	2nos. 165sqm each
	Photography studios	10	300	10nos. 30sqm each
	Yoga and prayer hall	150	225	
	Cafeteria	50	75	
			930	Sub-total
7 COSTUME DEPARTMENT	Storage		100	Clothing and jewellery
	Tailors	10	55	5.5sqm per tailor
	Changing and fitting room	3	30	10sqm each
	Studio		50	common open area
			235	Sub-total
8 PERFORMANCE AREAS	AUDITORIUM:			
	Administration	5	100	Box office
	Entry foyer and check room	5	75	
	Visitor's waiting	150	300	Seating and snack bar
	Make up and rehersal	175	500	Dressing, make up etc
	Production room	6	300	Material production etc
	Monitoring	7	150	Controlled envi.- proj,recordetc
	Performance:			
	Stage	50	300	Fly tower 20m high
	wings		400	
	Sinking area		50	Orchestra
	Seating area	1000	1200	
			4010	Sub-total
	Toilet :			
	a. female	5	17.5	3.5sqm / person (1200 peak)
	b. male	5	17.5	3.5sqm / person (1200 peak)
	EXPERIMENTAL THEATRE:			
	Performance:			
	Stage	50	300	Fly tower 20m high
	wings		300	
	Sinking area		50	Orchestra
	Seating area	500	600	
			1250	Sub-total

9 MUSEUM	Collection and storage	25	150	
	Display area	100	40	
	Exhibition space	50	300	
	Curatorial workshop	50	250	
	Toilet :			
	a. female	2	7	3.5sqm / person (1200 peak)
	b. male	2	7	3.5sqm / person (1200 peak)
			754	Sub-total
10 PUBLIC FACILITIES	Restaurant	100	250	including kitchen & buffet area
	Multipurpose hall	100	150	gathering and function
	Toilet :			
	a. female	2	7	3.5sqm / person (1200 peak)
	b. male	2	7	3.5sqm / person (1200 peak)
	Souvenir shop	25	50	
			465	Sub-total
11 ACCOMODATION	Hostel	500	3000	12sqm per room (double)
	Dormitory	100	1200	
	Guest houses	4	375	15nos. 25sqm each
	GURUKUL:			
	Guru residence unit	6-7	210	6-7nos. 30sqm each
	Shishya residence unit	40-50	300	
	Practice hall	5-6	150	5nos. 30sqm each
	Mess and other facilities		1500	
	Bathroom :			
	a. female	40	100	including common wash area
	b. male	40	100	including common wash area
			6935	Sub-total
12 SERVICE	Mechanical room Generator, etc		500	Sub-total
13 SCHOOL	Administration block:			
	Entrance lobby	25	70	
	Principal office	1	25	
	Office	30	100	
	Toilet :			
	a. female	2	7	3.5sqm / person (1200 peak)
	b. male	2	7	3.5sqm / person (1200 peak)
			215	Sub-total
	Teachers:			
	Staff room	30	150	divided into 3
	Pantry and store		50	common
	Infirmary		30	common for all
			230	Sub-total
	Labotory:			
	Science	50	70	
	Biology	50	90	
	Chemistry	50	90	
	Physics	50	100	
			350	Sub-total
	Sports room		90	store + indoor games
	Music room		90	store + learning
	Library		150	
	Multipurpose hall	150	200	
			530	Sub-total
	Classroom	20-25	2000	3nos per grade (1-12) 50sqm
	Montessory	10	50	2nos. 25sqm each
			2050	Sub-total
TOTAL			23646.5	

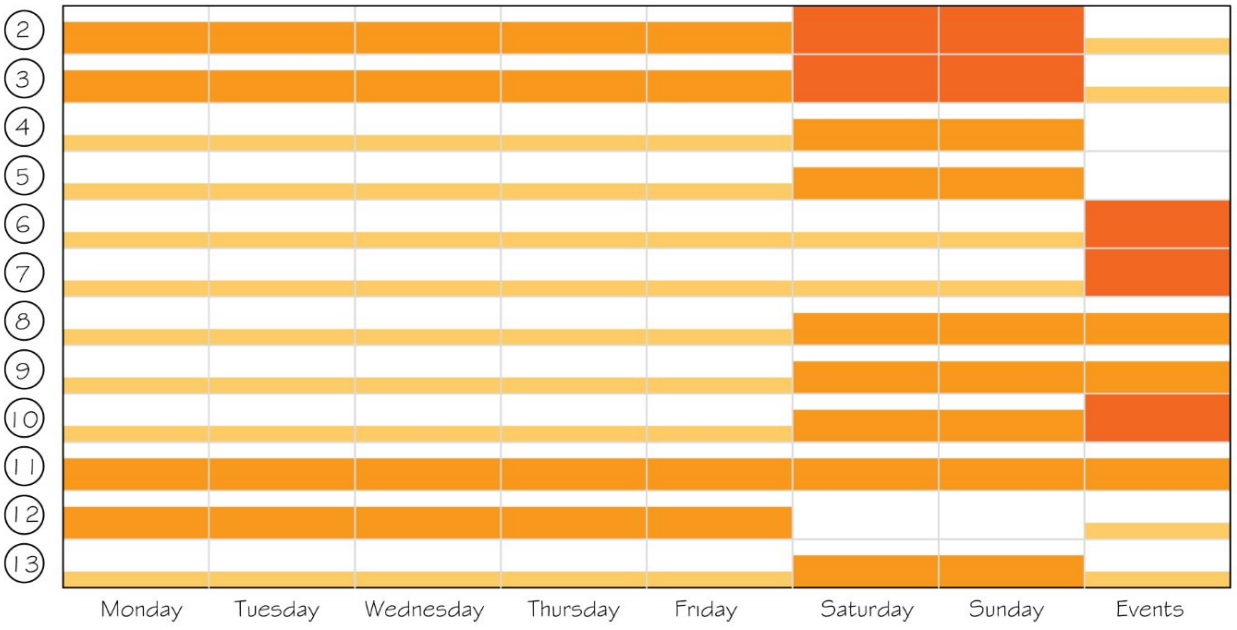
1. PROGRAMMATIC ANALYSIS & ZONING

1.1 SPATIAL ADJACENCY MATRIX



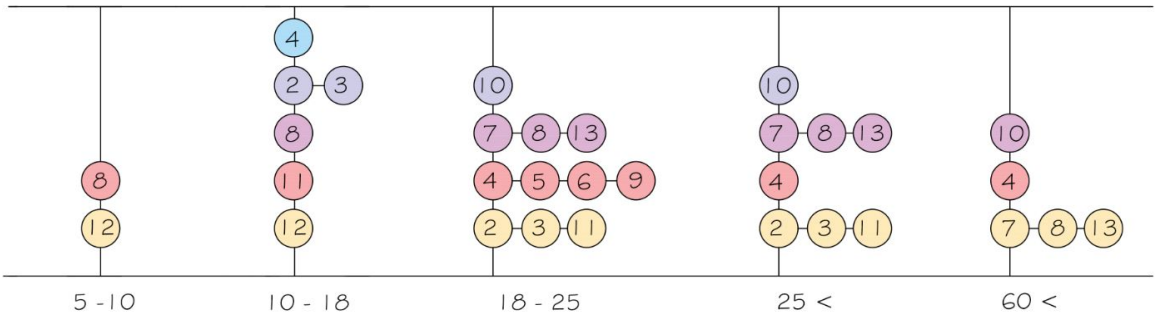
(Fig 63: Adjacency)

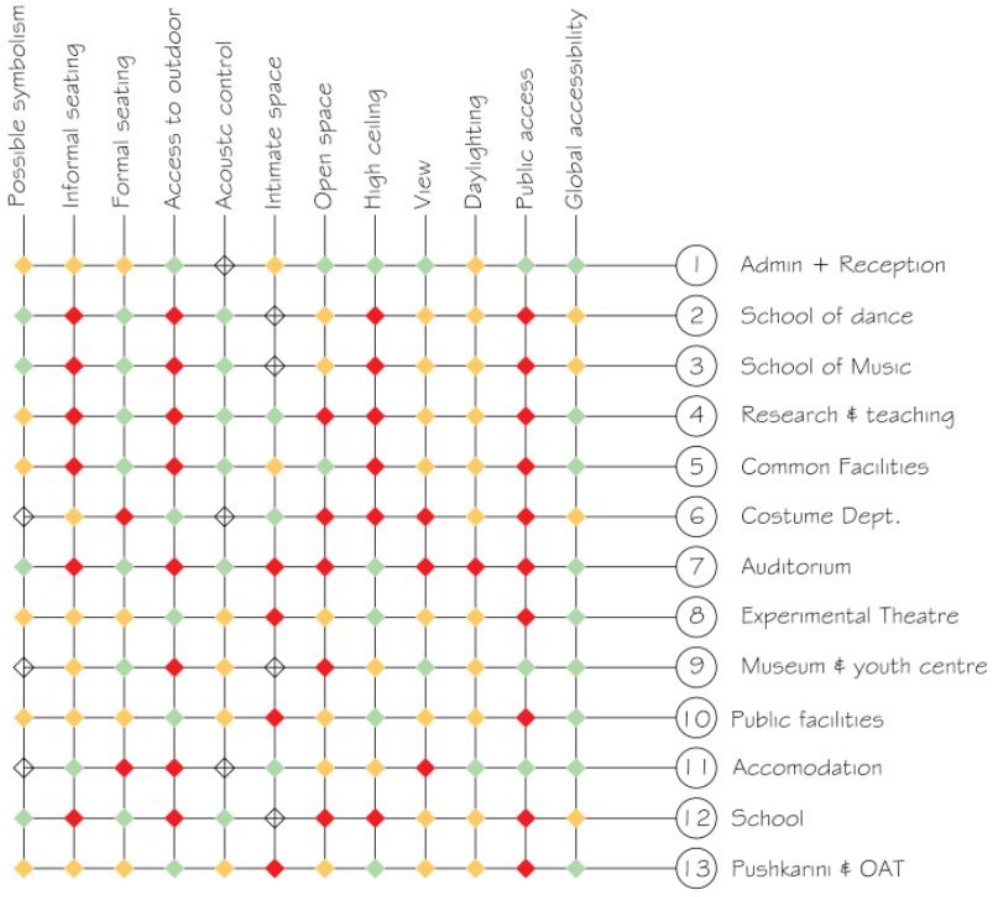
1.2 SCHEDULE FOR ACTIVITIES



(Fig 64: SCHEDULE FOR ACTIVITIES)

1.3 ACTIVITY PREFERENCE BASED ON AGE GROUPS

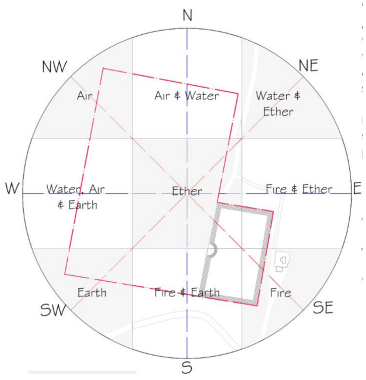




1.4 QUALITATIVE MATRIX

(Fig 65: Qualitative matrix)

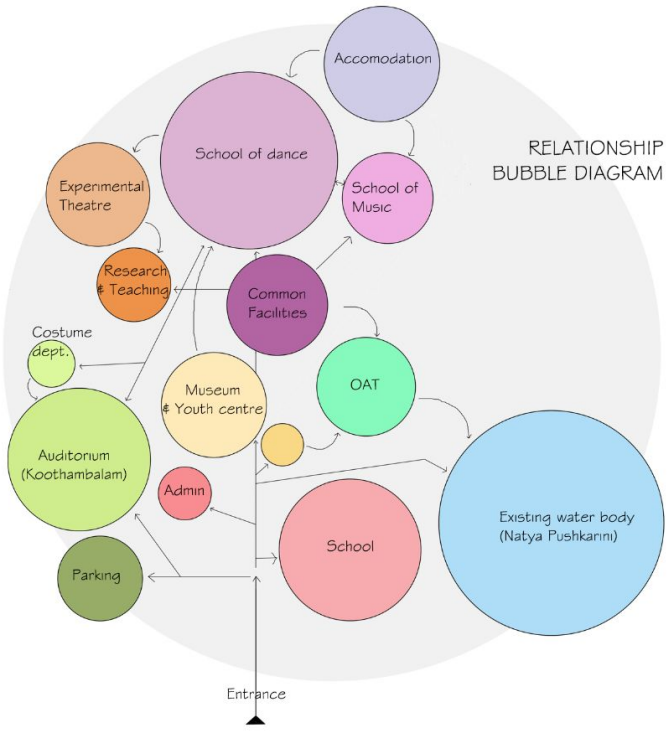
1.5 PRINCIPLES



Vastu shastra is a traditional Indian system of architecture originating in India which literally translates to "science of architecture." These are texts found on the Indian subcontinent that describe principles of design, layout, measurements, ground preparation, space arrangement, and spatial geometry. The designs are intended to integrate architecture with nature, the relative functions of various parts of the structure, and ancient beliefs utilising geometric patterns, symmetry, and directional alignments.

(Fig 66:Vastu shastra on site)

2. RELATIONSHIP DIAGRAM



(Fig 67:bubble diagram)

3. CONCEPT DEVELOPMENT

3.1 REFLECTING THE ROOTS OF ORIGIN

Indian architecture is diverse over time periods and regions, but they all function under some strong common themes. Most of the architectural styles were developed as a social and religious expression. the values and traditions of the society were embedded in the design and placement of space, its material usage, orientation and ornamentation.

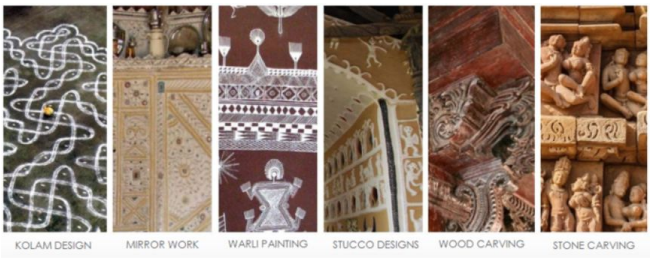
1. Principles: vastu shastra principles are considered by placing blocks based on the vastu purush layout and climatological considerations.

(Fig 68:Materials considered)

2. Materials

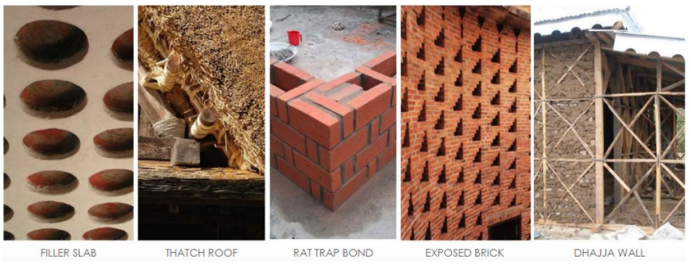
(Fig 69: Design elements considered)

3. Design elements



(Fig 70: Possible symbolism)

4. Symbolism



(Fig 71: Techniques)

5. Construction techniques

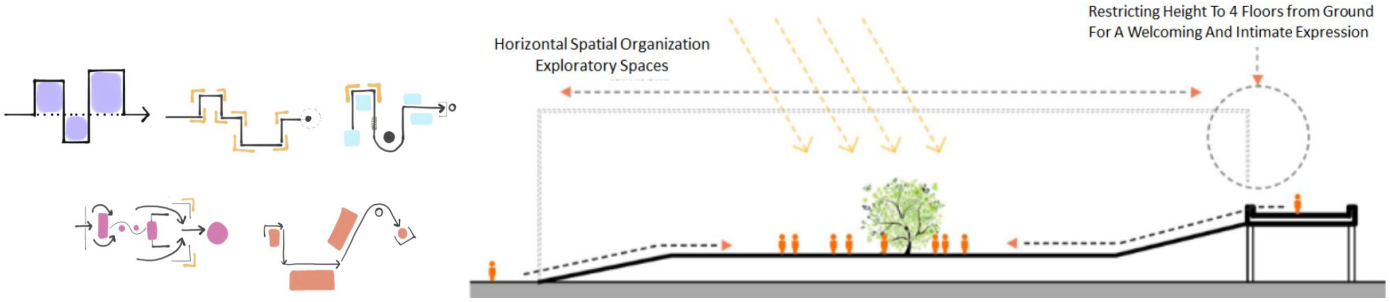
3.2 CONTEMPORARY LANDMARK

The space can serve as a contemporary landmark if it is built to serve as inviting as well as storytelling spatial narrations.

Storytelling through built spaces primarily achieved through spatial transition. One way to achieve this is to disparate the visual and physical axis of movement.

The path of movement is an important mark of storytelling.

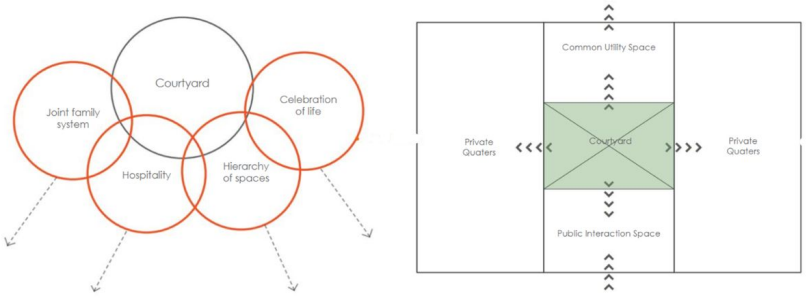
This can even be brought about the advancement through levels. The entire experience is further exaggerated by introducing the play of light and shadows.



(Fig 72:Spatial organisation ideology and height restriction depiction)

3.3 SPATIAL PHILOSOPHY

The components of the dance institute are based on the hierarchy of spaces in traditional indian homes. The typical layout is based on a central community space, in most buildings translated as a courtyard. In Indian design philosophy, courtyard is considered the most effective device to create a ‘world within a world’ experience. It forms an introverted space that draws activities to occupy within and develop over time.



(Fig 73: Courtyard system)

3.4 DESIGN PROGRAMME - IDEOLOGY

Beneficiaries:

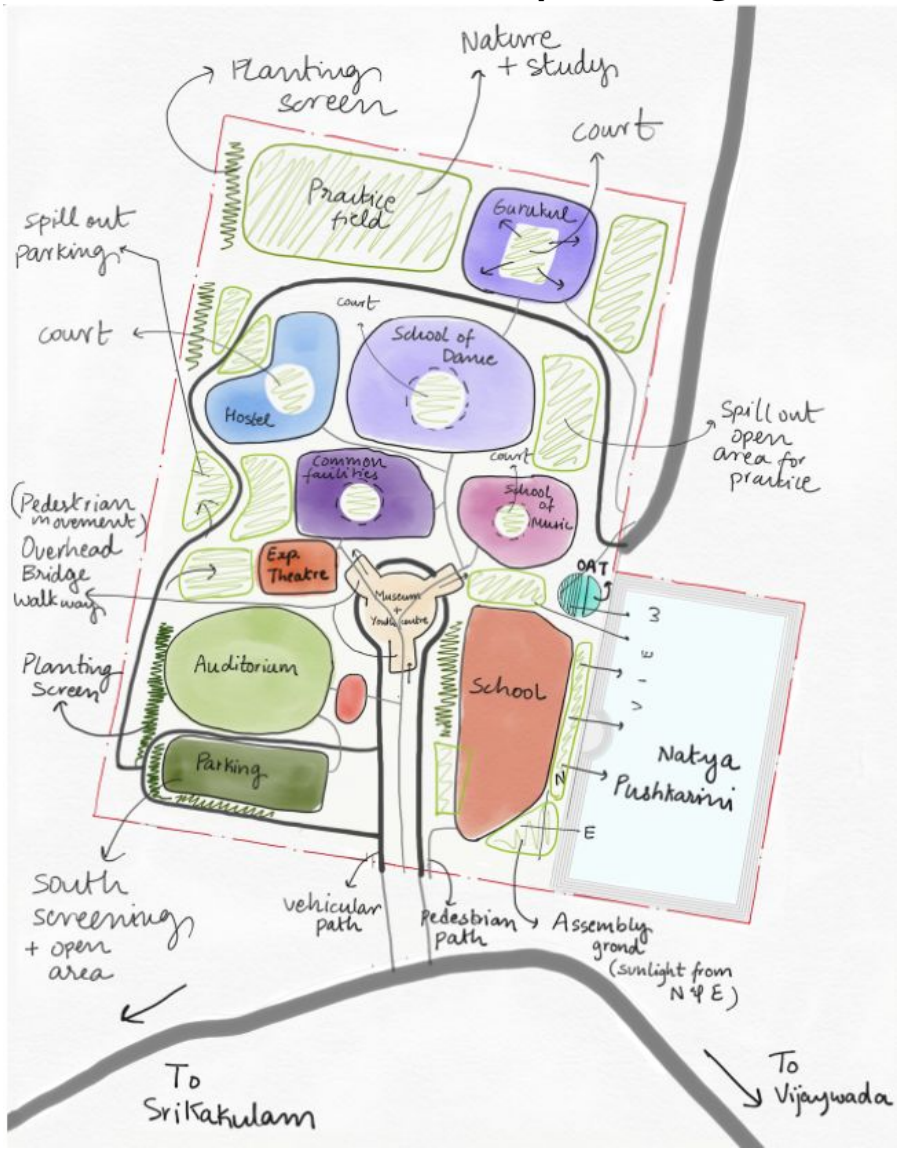
- Artisans
- Craftsmen
- Dancers
- Musicians
- Tailors
- Administrates

Secondary Beneficiaries:

- Tourists
- Visitors
- Students

(Fig 74:Design Attractions)

4. SCHEMATIC ZONING PLAN (Conceptual - stage 1)



(Fig 75: Conceptual zoning)

1. Complex Design

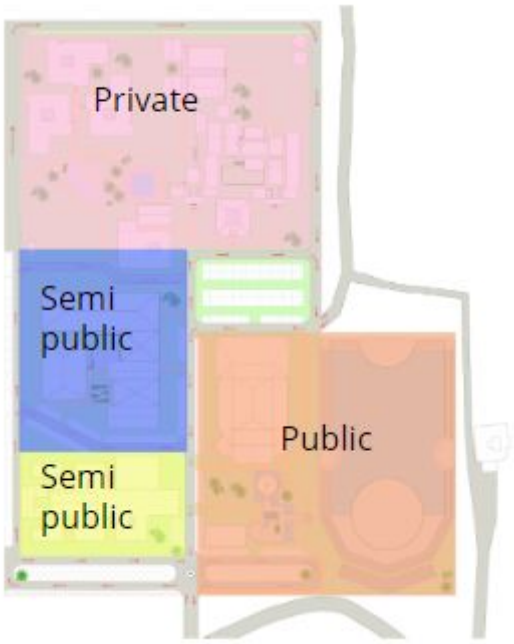
1.1 Site plan

(Fig 76: Design proposal - site plan)

1.1.1 Zoning and Planning

Inspiration from the Kuchipudi village layout: Planning of the complex was based on the village layout in the following way:

1. Main access road leading to the central main vehicular road in the complex similar to the main road coming from the central gate of the village
2. The main central road divides the village into 2 zones which are further divided into smaller clusters of houses. Keeping this in mind, the complex is divided into zones in a similar manner based on the functions.



(Fig 77:Site zoning according to privacy)

1.3 Services

1.3.1 Water Demand (Table 12:Water demand in public building)

Component	Capacity
Entrance	5
Administration, visitor admin and reception	130
Costume department	15
Experimental theatre	500
Museum	200
Public facilities (Restaurant, multipurpose hall and souvenir shop)	225
Auditorium	1500
Open air theatre	200
Total	**2775**

1. Public Building

Considering 45 litres per day per person

Capacity = 2775 X 45

124875 litres

2. Residential building (Table 13:Water demand in residential building)

Component	Capacity
Hostel	500
Dormitory	100
Gurukul	50
Total	650

Considering 135 litres per day per person

Capacity = 650 X 135

87750 litres

3. Institutional building (Table 14:Water demand in institutional building)

Component	Capacity
School of Dance and School of music	500
Amenity block	200
School	1000
Total	**1700**

Considering 45 litres per day per person

Capacity = 1700 X 45

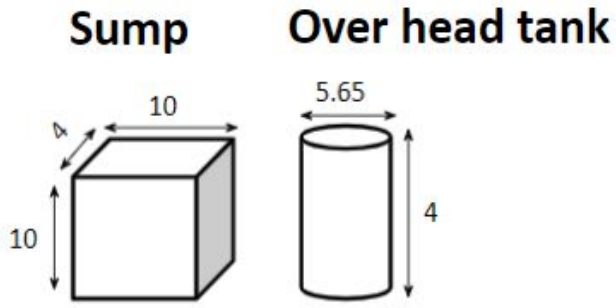
76500 litres

Total Capacity = 124875+87750+76500 = 2891250

Space required to store the water

1000 litres = 1m³

289125 = **289.125m³**



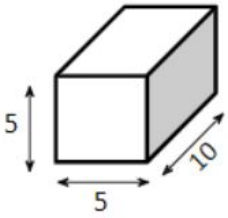
Considering Over head tank and Sump well combination:

Considering Underground tank = 66.66% &
Over head tank = 33.33%

Sump well = 289.125 X 66.66% =129.56m³
= 200m³ Considering 2 days storage
= 200X2=400m³

Over head tank = 289.125 X 33.33% =96.57m³
= 100m³ Considering 1 day storage

1.3.2 Sewage treatment plant capacity



On site sewage treatment plant capacity = 80% of Total water demand

= 289.125 X 80% =231.3m³

= 250m³

1.3.3 Parking (Table 15: parking calculation)

Calculations

Component	Seats/area	Spaces
School	60 seats	**20**
Restaurant	910 m^2	9.78 ~ **10**
Museum	569.77m^2	6.12 ~ **7**
Auditorium	1500 seats	**300**
Open air theatre	400 seats	**80**
experimental theatre	250 seats	**50**
Dance and music school	45 faculties	**45**
Total		**512**

Guideline:

Auditorium (accessory for the university)

1 space = 5 seats

College/University:

1 space = 3 faculty

1 space = 3 full time employee

1 space = 10 students

Dance/Music Studio:

1 space = 1 employee

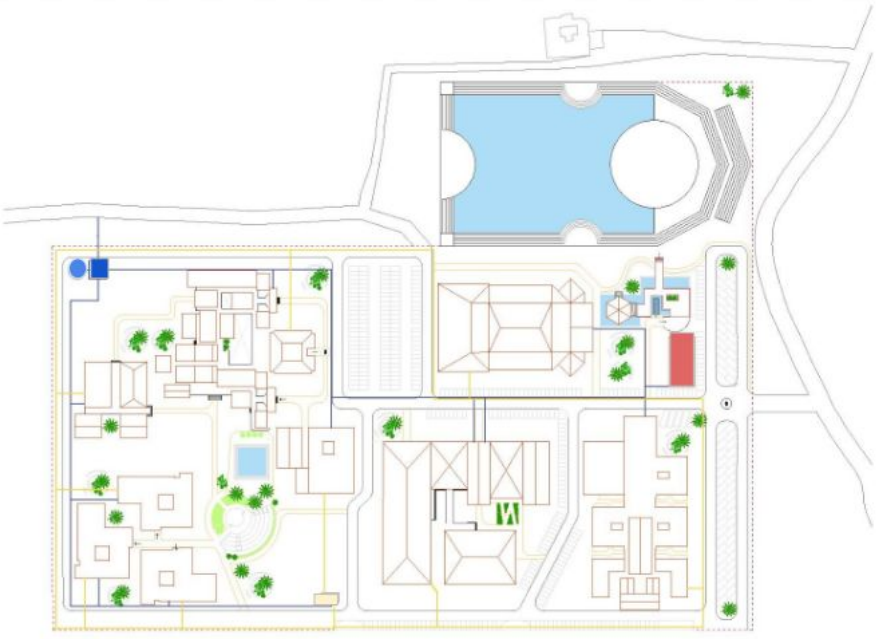
Art gallery/museum:

1 space = 1000 ft

Restaurants:

3 spaces = 1000 ft

Miscellaneous: 3 space = 1000 ft. (1ft. = 0.093m^2)



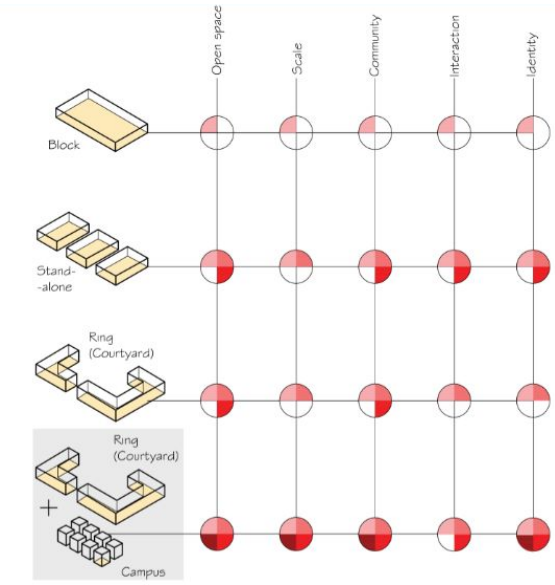
(Fig 78: service flow on site)

2. Components Design

2.1 SCHOOL OF DANCE AND MUSIC (MAIN BLOCK)

2.1.1 Concept (design ideology)

Dance and music studio block development



Idea was to create an interactive environment for the dancer community with a sense of identity by forming a series of open and closed spaces.

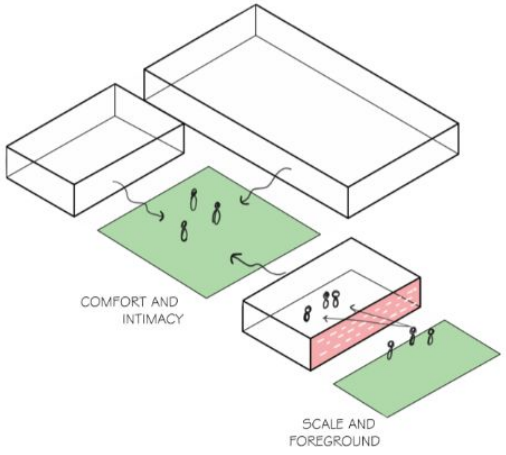
FACTORS TAKEN INTO CONSIDERATON:

1. Acoustcal consideratons: Dance studios are placed around courtyard, no walls intersecton.

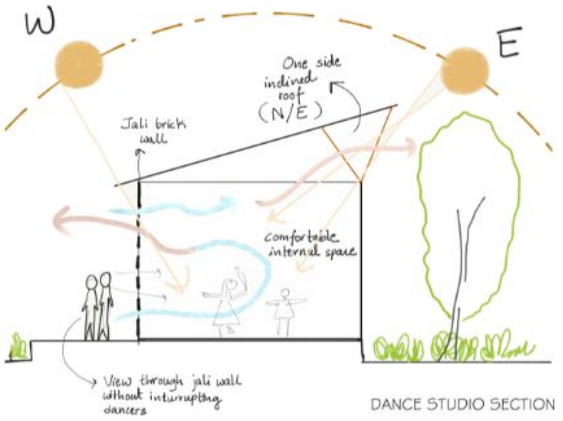
2. Sunlight: Inclined roof towards North and East.

3. Ventilation: Inclined roof and Jali brick wall opposite to each other allowing cross ventilation.

4. Privacy: Intimacy and zoning based on user movement.

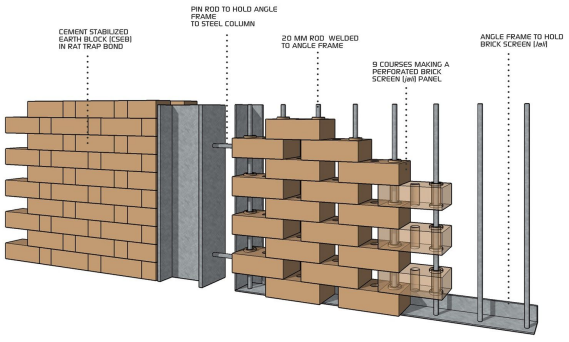


(Fig 79: Arrangement of building blocks)



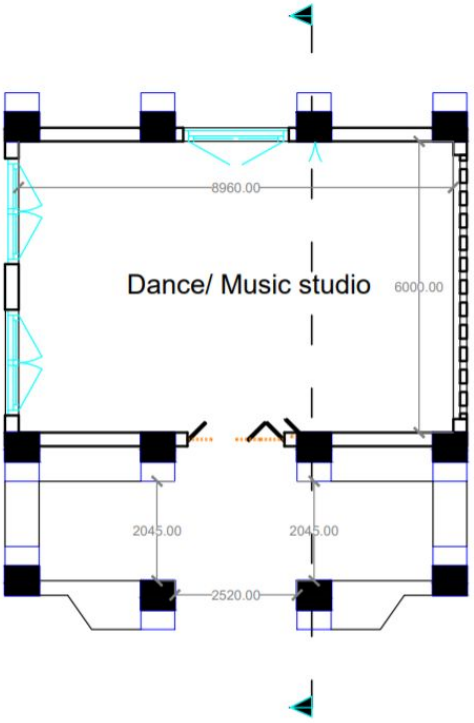
(Fig 80:Studio graphical section)

Brick Jali facade for ventilation and daylighting:

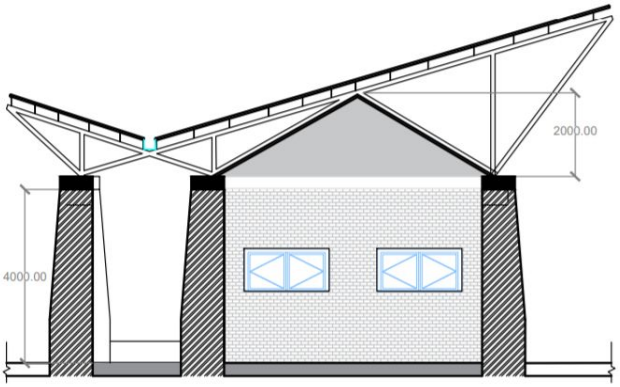


(Fig 81: Brick jali system)

UNIT PLAN AND SECTION (STUDIO UNIT)

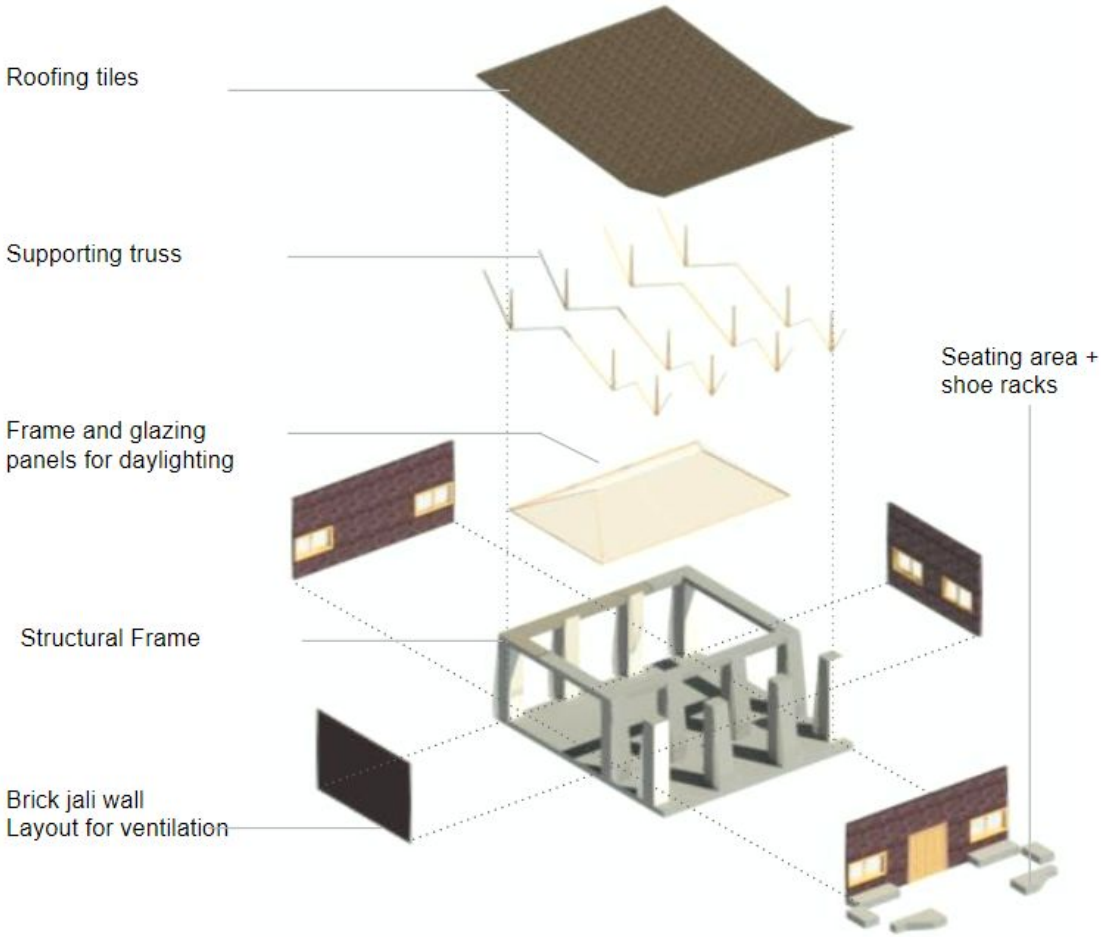


(Fig 82: Studio unit Plan)



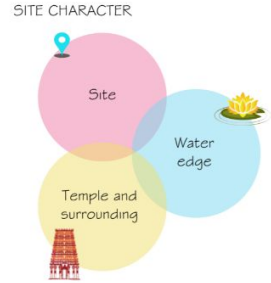
(Fig 83: Studio unit Section)

EXPLODED VIEW (STUDIO UNIT)



(Fig 84: Studio unit exploded view)

GF level Site Plan



Site is located on the opposite shoreline of the temple and its surrounding consisting of 'Kuchipudi agramam' - residence cluster of kuchipudi dancers.

Location of the site is perfect for a dance institute as it lies on the edge of the village and is surrounded by agricultural land and pond on one side. This improves the privacy of the area as it is isolated from rest of village.

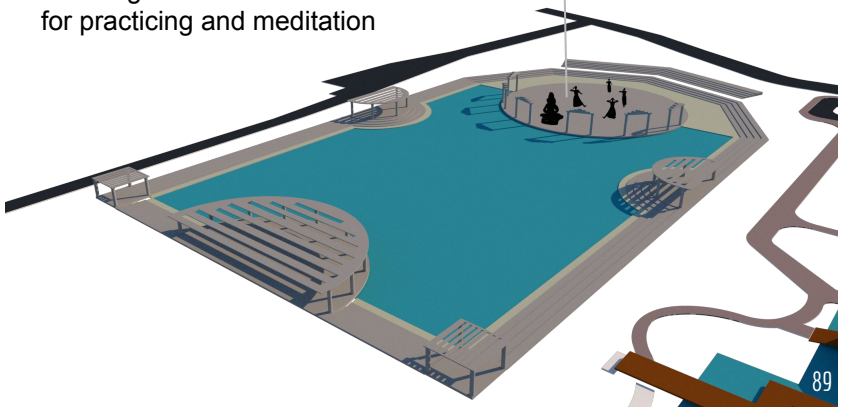
As the site lies close to the highway road, it is accessible by nearby areas.

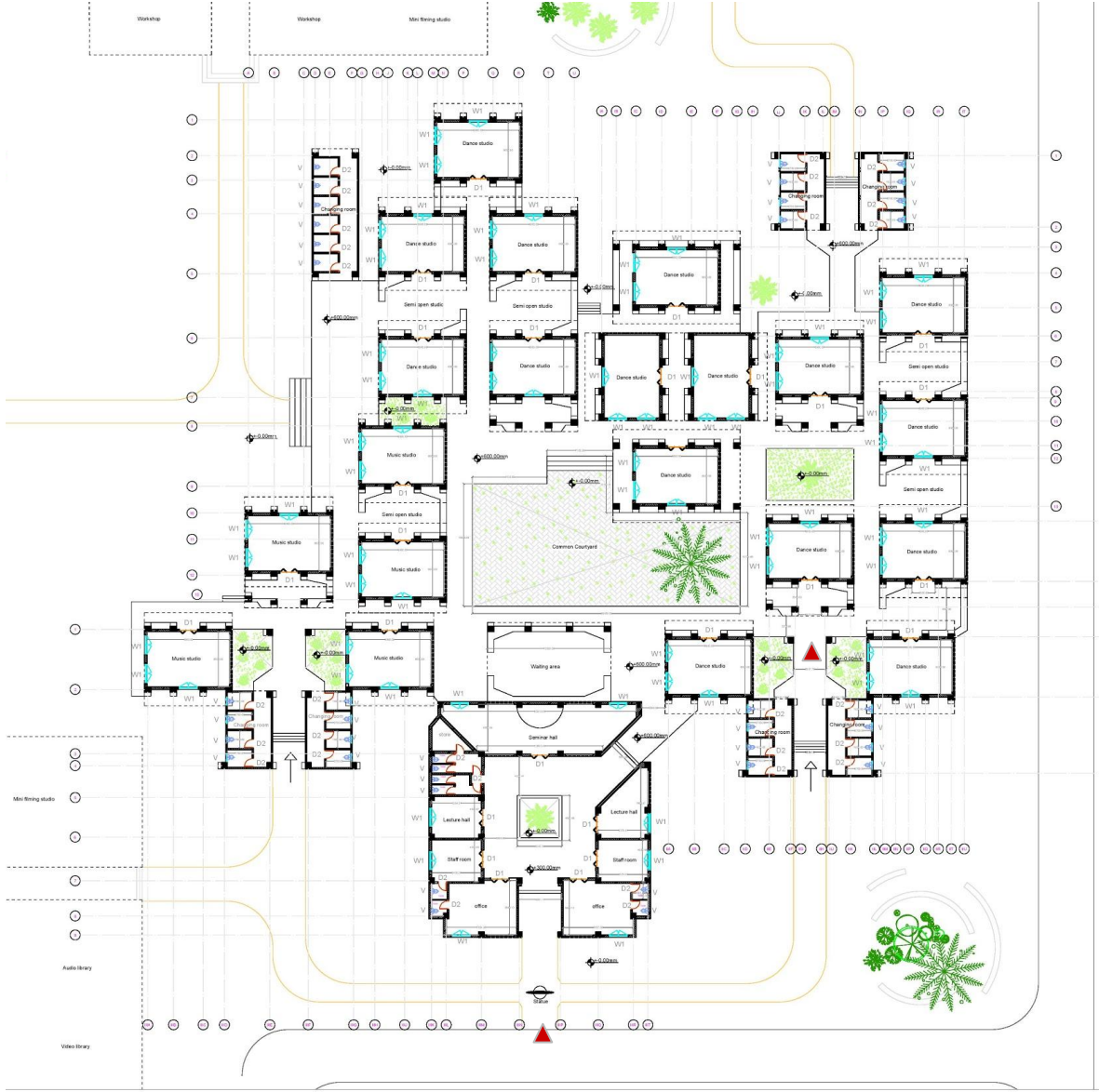
Natya Pushkarini :
is an amphitheatre developed around a lily pond.
This is a part of dance institute serving as space for meditation and sadhana (peaceful practice) of dance or music.

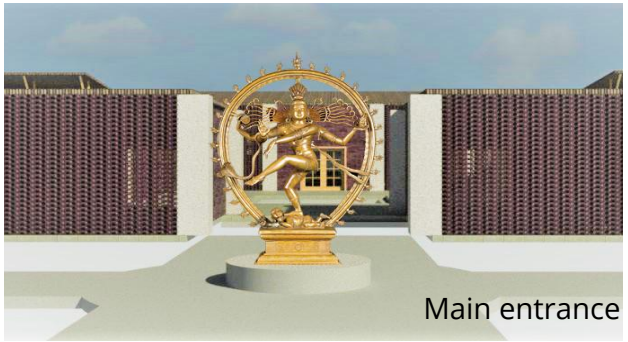
Includes pavilions and steps. Effort is to preserve the resource. Pond help maintain the ground water level in the area.

NATYA PUSHKARINI

Creating a sense of sacredness for practicing and meditation







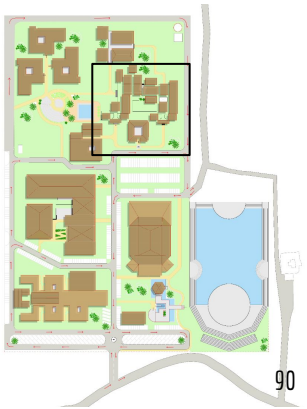
BRICK WALL

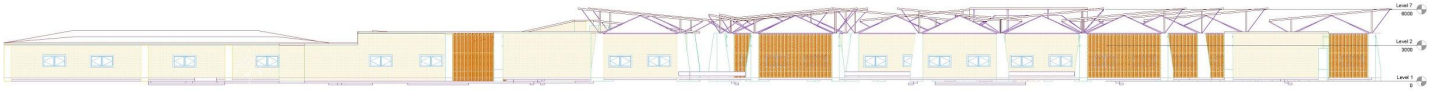
STRUCTURAL COLUMN (BRICK)

SCHEDULE OF OPENING		
W1	2.00 X 1.50 M	68
D1	0.90 X 2.10 M	29
D2	0.75 X 0.90 M	31
V	0.60 X 0.75 M	38

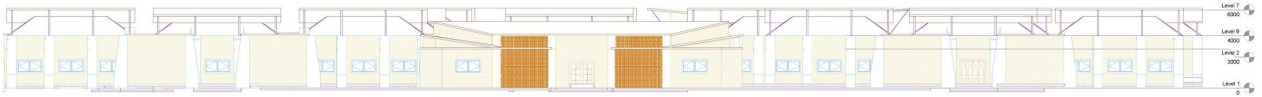
SCHOOL OF DANCE AND MUSIC

GROUND FLOOR PLAN

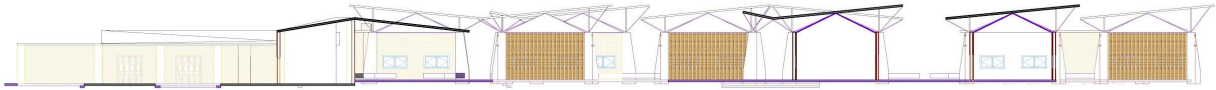




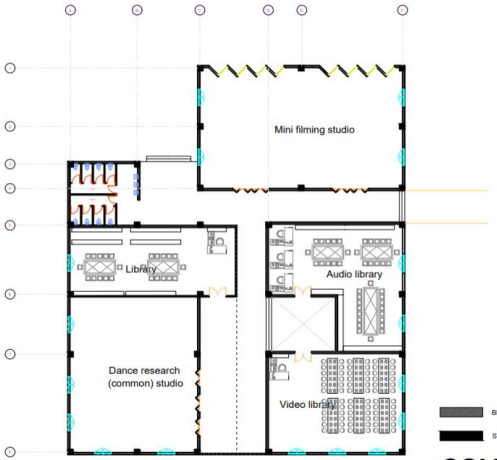
East elevation



Front elevation



Section 1-1’



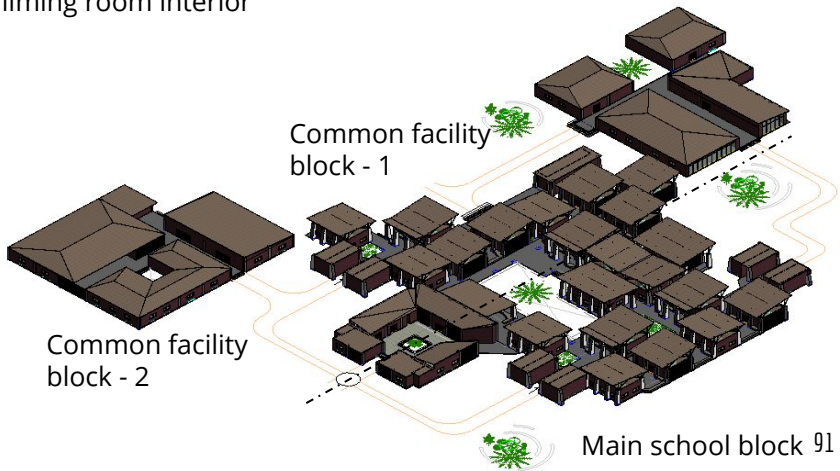
Common mini filming room interior

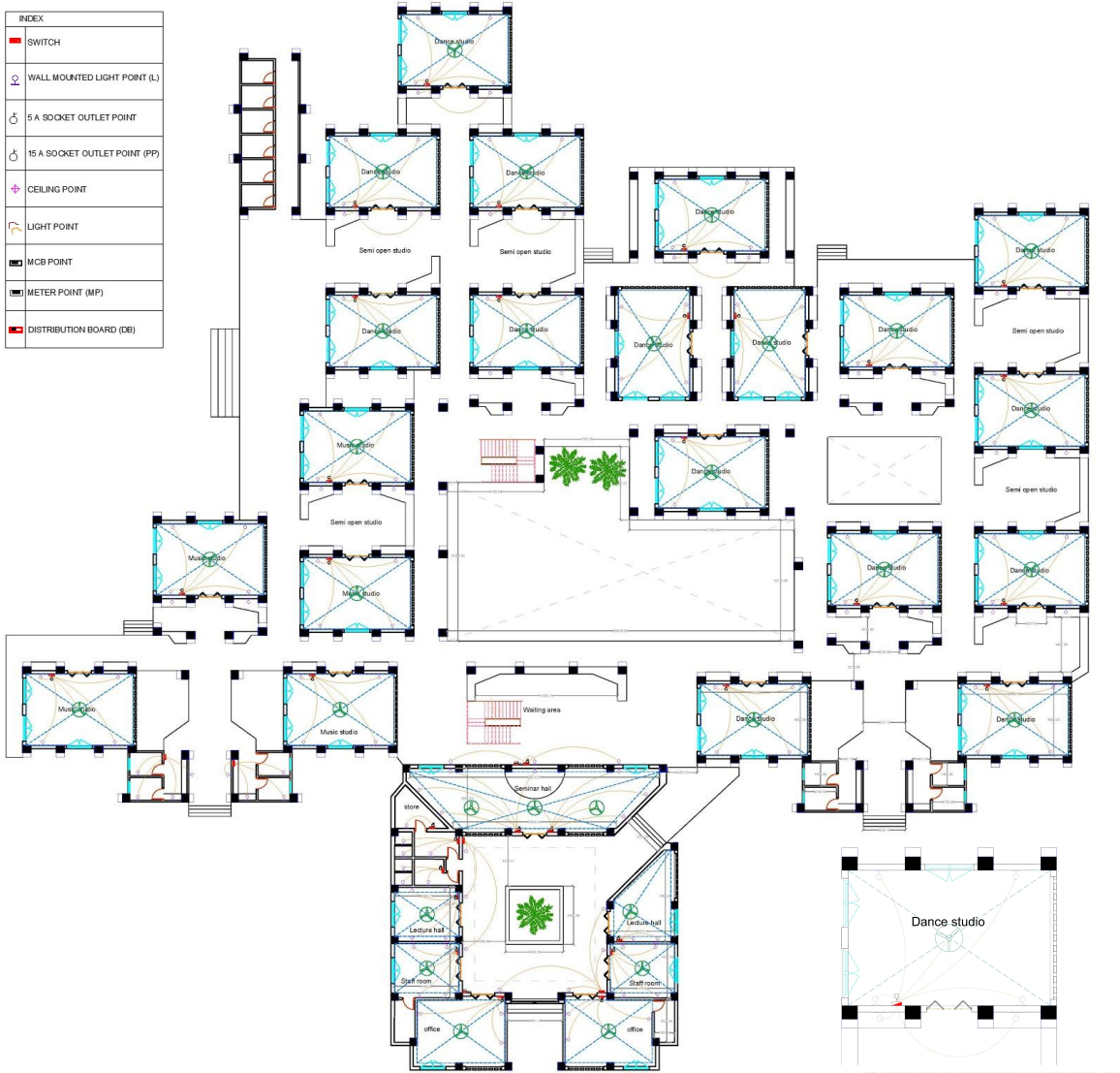
BRICK WALL

STRUCTURAL COLUMN (RCC)

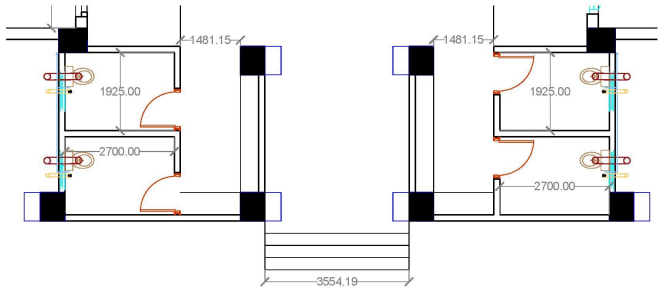
COMMON FACILITIES

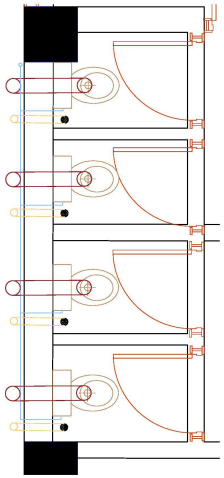
GROUND FLOOR PLAN

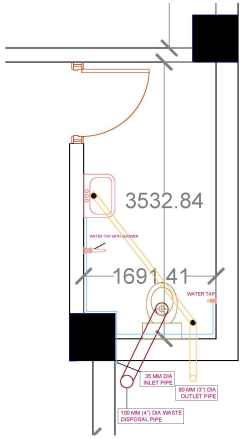




GROUND FLOOR ELECTRICAL LAYOUT PLAN



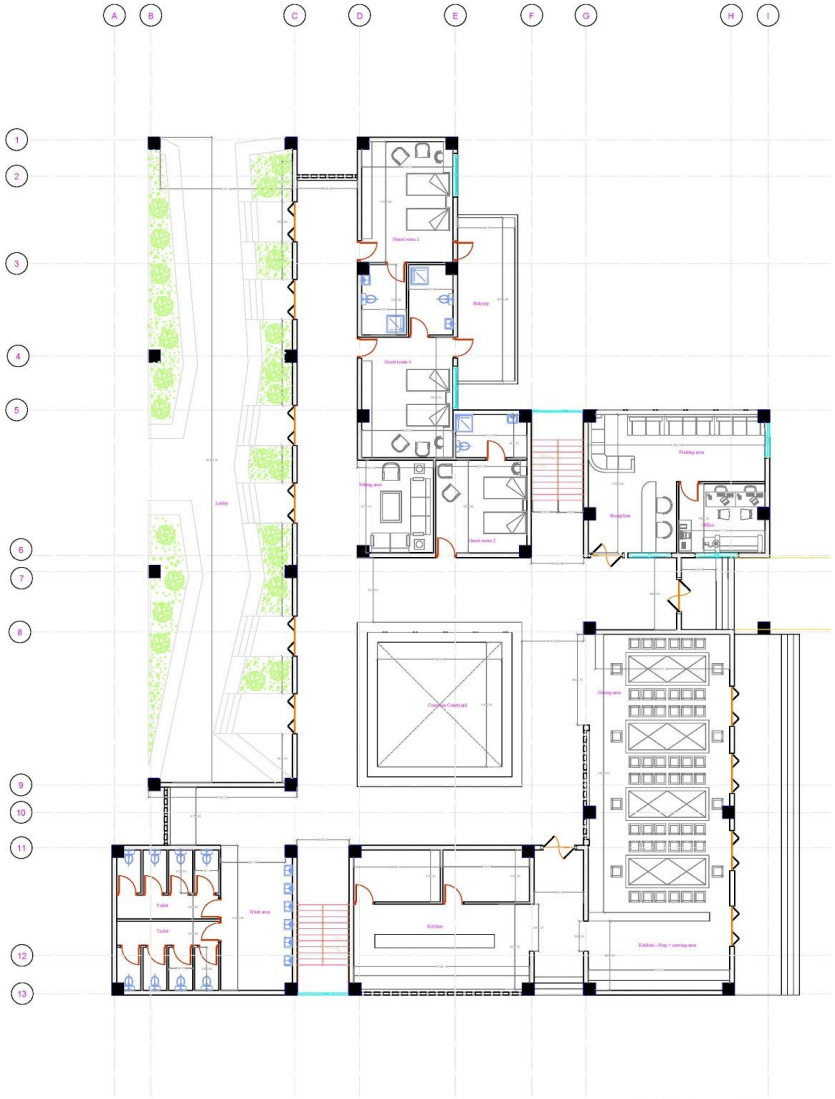




PIPE SCHEDULE	
100MM THICK WASTE DISPOSAL PIPE	
80MM THICK OUTLET PIPE	
35MM THICK INLET PIPE	

SCHOOL OF DANCE AND MUSIC

PLUMBING DRAWING GROUND FLOOR PLAN



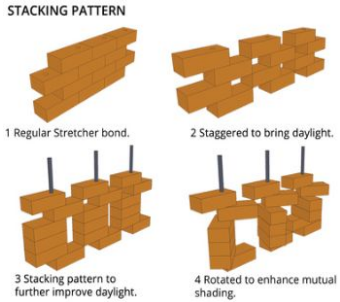
GROUND FLOOR PLAN
HOSTEL

Front elevation

Rear elevation

East elevation

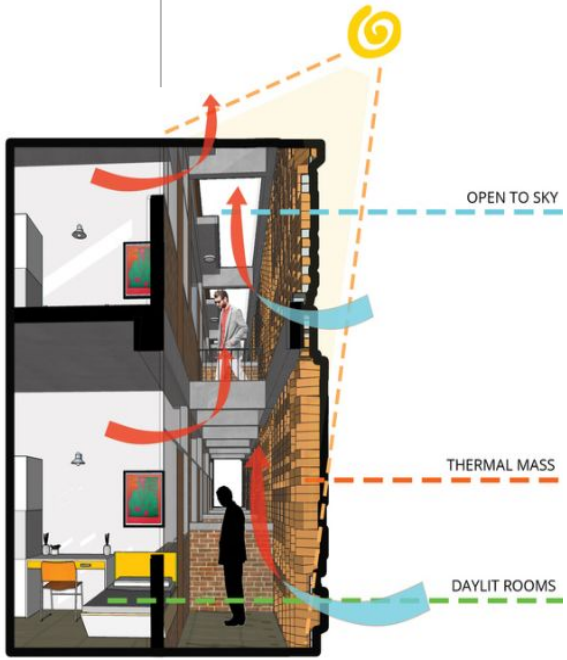
Leisure area on ground floor



Hostel unit

External View

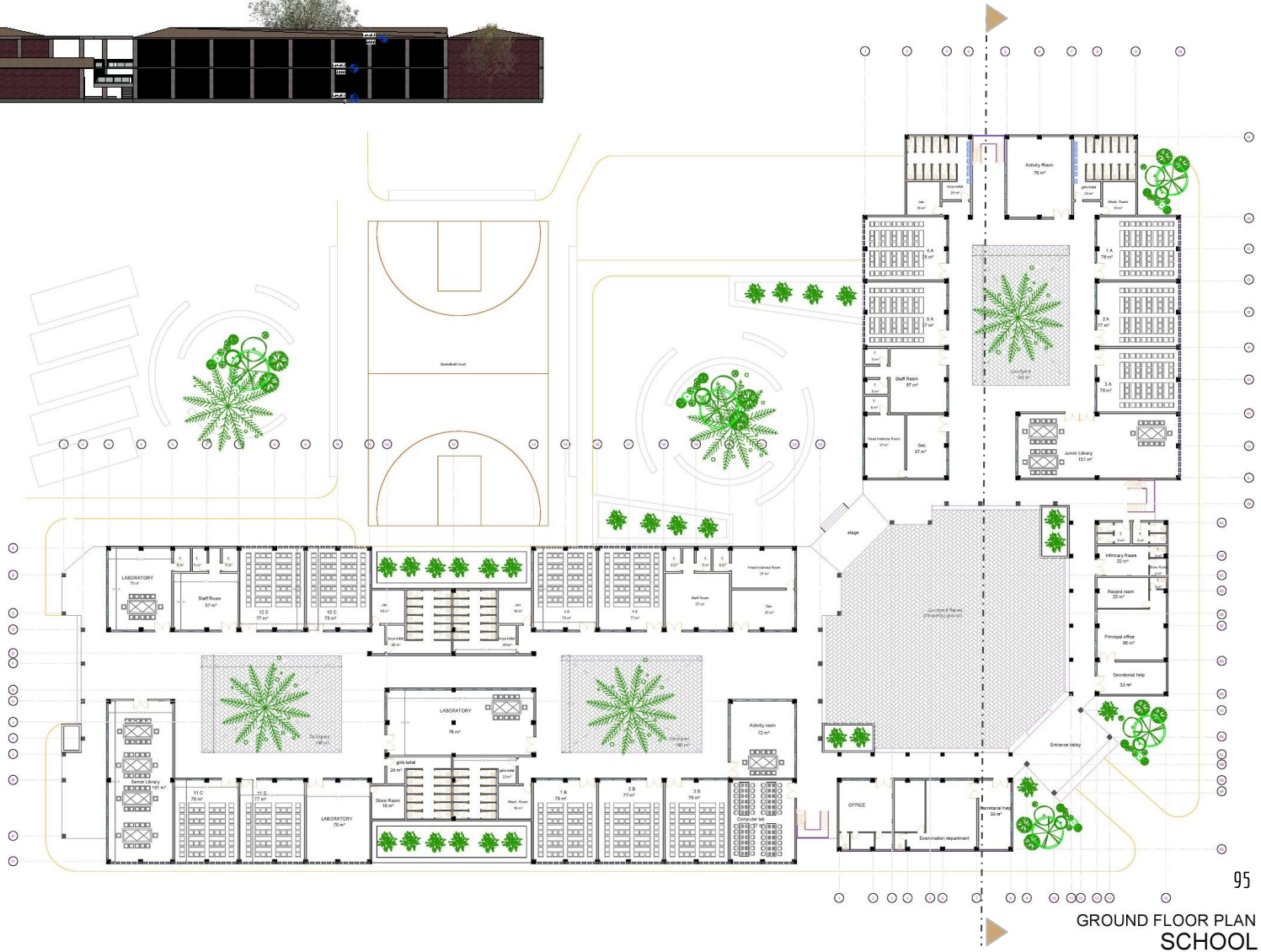
Section 1-1’



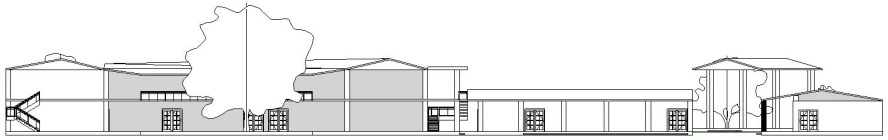
FIRST FLOOR PLAN

SECOND FLOOR PLAN

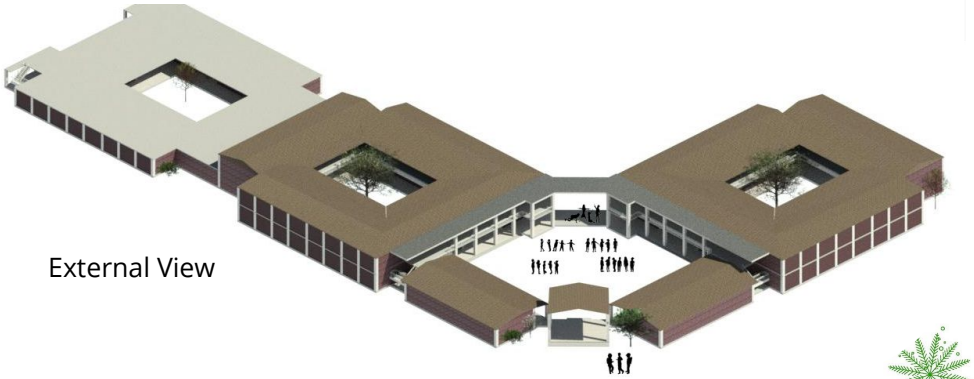
East elevation



GROUND FLOOR PLAN
SCHOOL

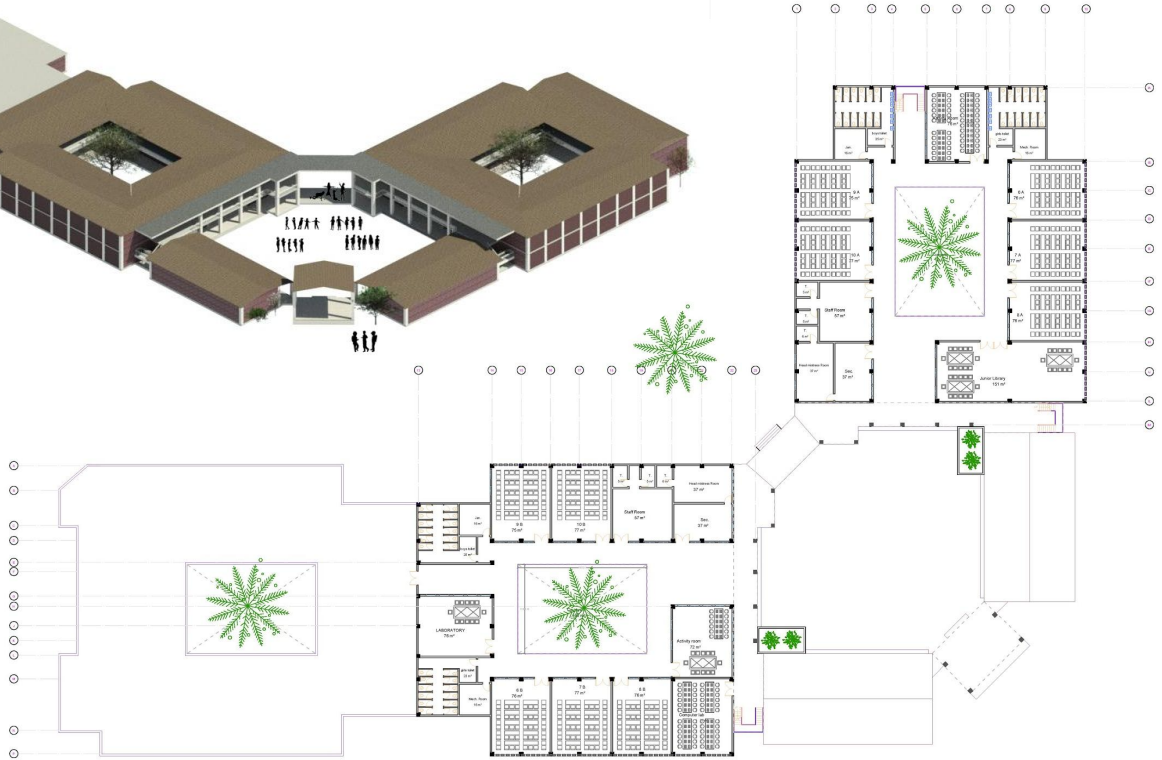


Section 1-1’



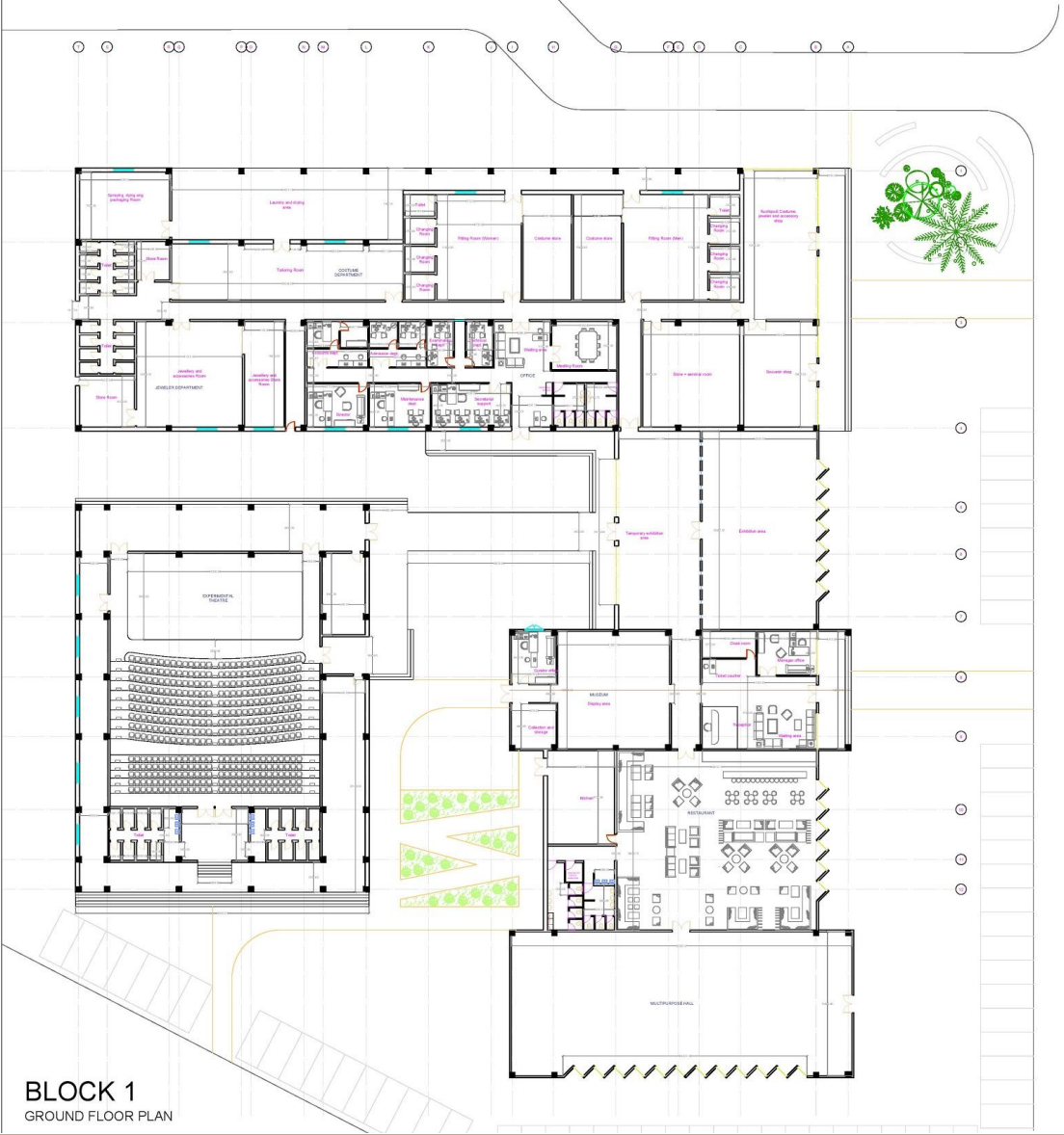
External View

Internal courtyard View`

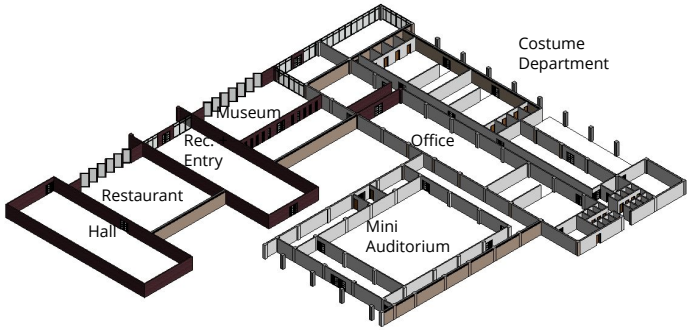


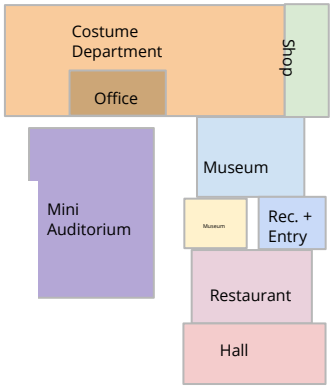
FIRST FLOOR PLAN
SCHOOL

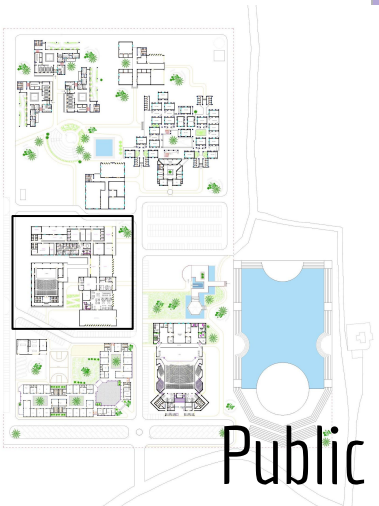
North elevation



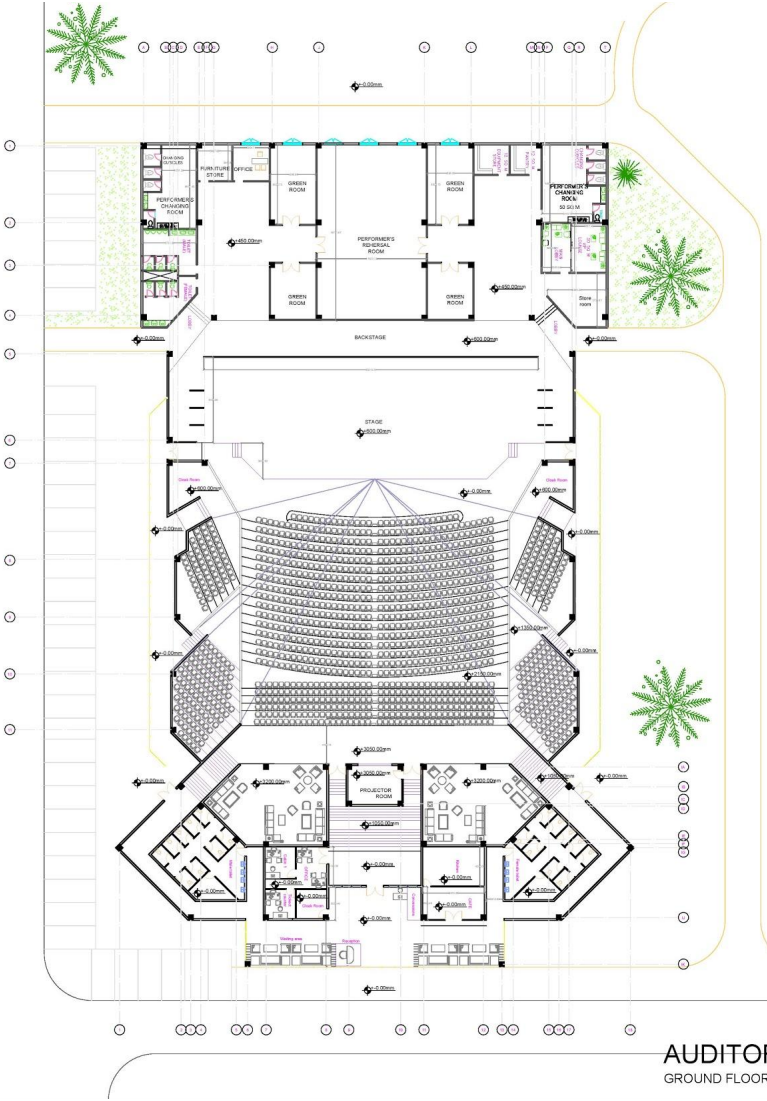
BLOCK 1
GROUND FLOOR PLAN



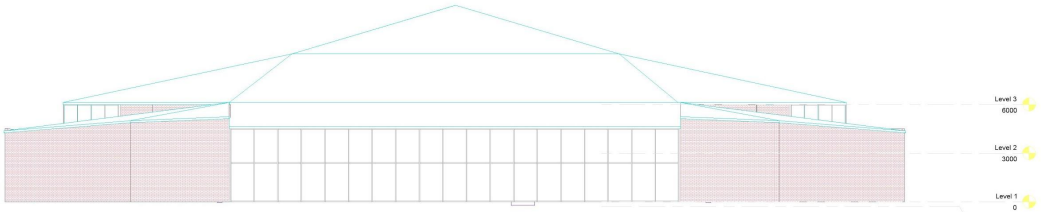




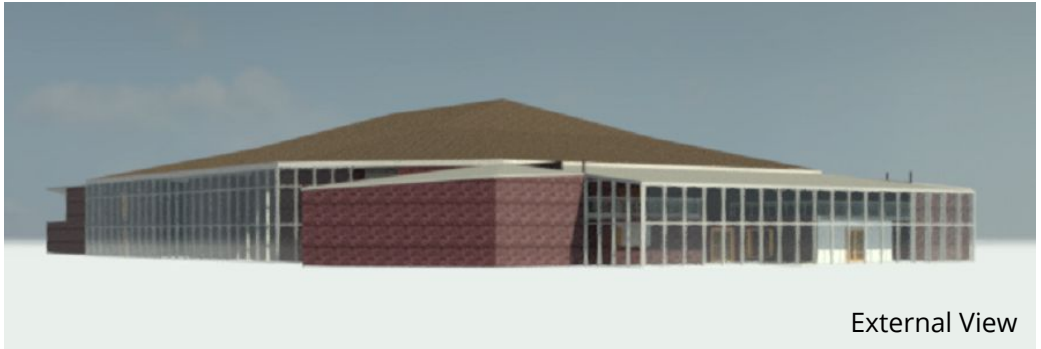
Public facility Block



AUDITORIUM
GROUND FLOOR PLAN



Front elevation



External View

AUDITORIUM
MEZZANINE FLOOR PLAN

Auditorium (Koothambalam)

PROGNOSIS

Throughout the design process, the character of the cultural Dance hub has evolved by not just confining inside the wall, but also flowing and connecting the outside realm with the inner. This has been brought about with various programs, spaces and different inter action intended zones. The subjective focus was on creating an interesting relationship and movement between the functions, in parallel to a site specific expression.

Acting as a central development node for the Village and beyond the design of the complex intends to encourage the growth of a better neighborhood.

There is no ambition to postulate that something got solved but rather to acknowledge that the outcome is a direct product of our own priorities.

Overall, one can conclude that the program for this project might be too big in scale for the plot that was chosen. Then again, with the limitation remaining, it contributed to a more context oriented design path.

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