SEMINAR 2

CENTRE FOR PUPPETRY

BY

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SUBMITTED IN PARTIAL FULLFILLMENT OF THE REQUIREMENTS

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Abstract

The project, ‘Puppet Animation Theatre and Children Centre’, aims to create a better world for the children that will ensure them to grow up in a joyful environment, to learn the basics of life, to see the difference between light and darkness, to choose the right path. Today we live in a polluted city and we cannot avoid human pollution from our life, form our society. People are becoming desensitized, so as our children. They practice slavery for moving forward and young mind grabs whatever it finds. Schools are not enough for children’s better up growing. They need a space of their own, where they will learn to know about themselves, and about the world that surrounds them. They will find all the colours of life and will be able to create their own philosophy of it. They will grow up so as they can make a difference. This project will perform as a home ground for our children. The project has two wings: one is the animation theatre based on puppetry and other is the children centre. Puppet as an art form communicates best with the children. Puppet, to a child, is like his/her play-mate. The theatre aims to produce puppet animated films on various stories that will help them learn values of life. It will also provide workshops on puppetry and live puppet shows where the children can participate. The children centre will help children to explore the colours of their imagination. This aims to provide a healthy environment and a ground to play. Since this art form includes almost all other types of art, this will help enhance each child’s ability to choose their own best.

Contents

Chapter 1: Background of the project :

This is the first chapter where a brief of the project is given along with a general idea about site and surroundings. A basic program obtained from the client is also presented and formal introduction to the project and its aims and objectives are clarified in this section of the writing.

1.1 Project brief:

1.1.1 Name of the project: Centre for puppetry

1.1.2 Project type: Cultural

1.1.3 Client: EPDC (Educational puppet development centre)

1.1.4 Location: Dhaka

1.1.5 Site area: 522720sqft. ,12 acres

1.2 Project Introduction:

Children posses a power to such an extent that they can travel even beyond imagination. Rabindranath Tagore, in a writing, said ‘in our country childhood education system contains no delight for children’, [Merry Monwar, 2000]. Modern theories of learning has emphasized on ‘entertaining’ children first in order to educate them, believing that burden becomes light when cheerfully borne. All children have creative instinct and they want to express themselves in their own way through games, music, painting, drama and so on. A child has a magic eye to see various things in his own magical way. So, the creativity and originality of the child must be nurtured and enriched.

Puppetry is such a performing art that almost all forms of arts and crafts have been combined init. It includes drawing, painting, modelling, sculpture as well as acting, singing, costume designing and every other form of dramaturgy. The more the children get exposed to the creative world, the more their own talents begin to get expressed. Puppetry is perhaps the oldest surviving art form of the world. The earliest mention of puppetry occurs in an ancient Indian epic ‘Mahabharata’ written in the ninth century B.C almost four thousand years ago [www.google.com]. Puppet theatre in an old traditional art form of Bangladesh and once it was the spine of our village entertainment but now it is possibly the least developed in our country [Merry Monwar, 2000]. It is a way of joy and

learning for the children and adults also, but with advancement of technology, the practice of puppetry is very rare. And as well, the numbers of puppeteers are decreasing day by day. Since in our country there are not much institutions working on spreading the art form of puppetry, there is a need of such a complex which will help revive and promote the culture once again. Puppet theatre has tremendous merits which can develop and direct a child's thought process. By designing a centre for puppetry, we can build a platform where Bangladesh puppet culture can flourish with lasting hope and effects. It will give out innovative puppetry expressing and influencing the essence of patriotism, culture, traditions, ethics, environment and consciousness of social factors. In a city, like ours, where most schools have no playground, where children are hostage to just amusement parks and cartoons on televisions, we desperately need to provide a place for them. A place such that it can help them enhance their creativity and see a form of performance that will teach them about our culture, educating them in many ways. The children centre which is an integral part of this project along with the theatre will contribute greatly to this objective. This project will not only contribute to save and culture an important art but will utilize the potentiality of this unique media, in making children's programs, social issue programs and public awareness programs. This project will also have a training section to ensure the continuity and development of the unique art.

1.3 Aims and objectives of the project:

- To design a centre which aims to create a better world for the children that will ensure them to grow up in a joyful environment, to learn the basic steps of life, to see the difference between light and dark and to choose the right path**.**
- We have a large percentage of young generation and creative mind, with proper utilization of our manpower in this sector they can express their creative prospect.
- It will be a landmark for next generation for puppet and animation movie Moreover, this project will be an icon of Bangladesh to the whole world through which our dream, idea, capability, puppeteer, animators, technology will be explored.
- The professional puppeteers, who work in our country for a long time, will find the way to establish themselves again and can share the idea of puppet animation with the world

- , This project becomes a '*Plaza'* for both the pioneers and the new generations and can work as a doorway for shearing culture, dream, idea, capability, creativity and technologies to explore.

1.4 Functions and programs required for the project:

The design proposal can initially be divided into the following main parts, according to the types of activity.

1. Administration Unit
2. Children Centre
3. Production Unit
   - Workshop
   - Studio
4. Exposition Unit
   - Movie Theatre
   - Library and Cyber Facility
   - Permanent and Temporary Exhibition
   - Restaurant, Souvenir Shop, Parking.

1.5 Rationale of the project:

This particular project is very important with its new purpose of its global phenomena. The global aspects and the overwhelming capability of being popularized bring about new complexities of the program, function, and their proper linkage along with its contextualized representation in the form. That is why it needs careful understanding of space, form and function. So in such a project, it is essential to have a proper planning and understanding of the requirements. The project has two wings. One is the animation theatre based on puppetry and the other one is the children centre. Puppet as an art form communicates the best with the children. To a child puppet is like his/her play-mate. The theatre aims to produce puppet animated films on various stories that will help them learn the values of life. It will also provide workshops on puppetry and live puppet shows where the children can participate. The children centre will help a child to explore the colours of his imagination. This aims to provide a healthy environment, a ground to play, to learn the basic of everything, to know the value of different things and to learn the difference between good and evil. The learning of their basic will start with the play of light and colours, music and tales and the centre will help them to be a better human being. The

puppet animation theatre can again be sub-divided into three categories which are the production zone, the recreation zone and the children research zone. The complexity to provide all the three different zones in such a small area incorporating the children centre along with it, is a challenge for a designer. Understanding of an absolute different sector and its qualities, and to create a joyful space for children through local context and technology, also creates a challenge. Not only the project is going to be a milestone for our country in puppet animation field but also will be an influential complex for the next generation activities.

Chapter 2: Site Appraisal :

Site appraisal holds the details of the site such as site location, area and its surroundings. The access ways or streets and communication means, landmarks. An overall idea of the site is achieved from this chapter. Analysis of the site and surroundings is presented here.

2.1. Location of the site:

Location: Agargaon, Sher-e-banglanagar, Dhaka, Bangladesh

Site area: 522720 sq. ft. , 12 acre (approx)

Plot no.- D-30

Altitude:9m from sea level

Latitude: 23"46' N

Longitude: 90"22' E

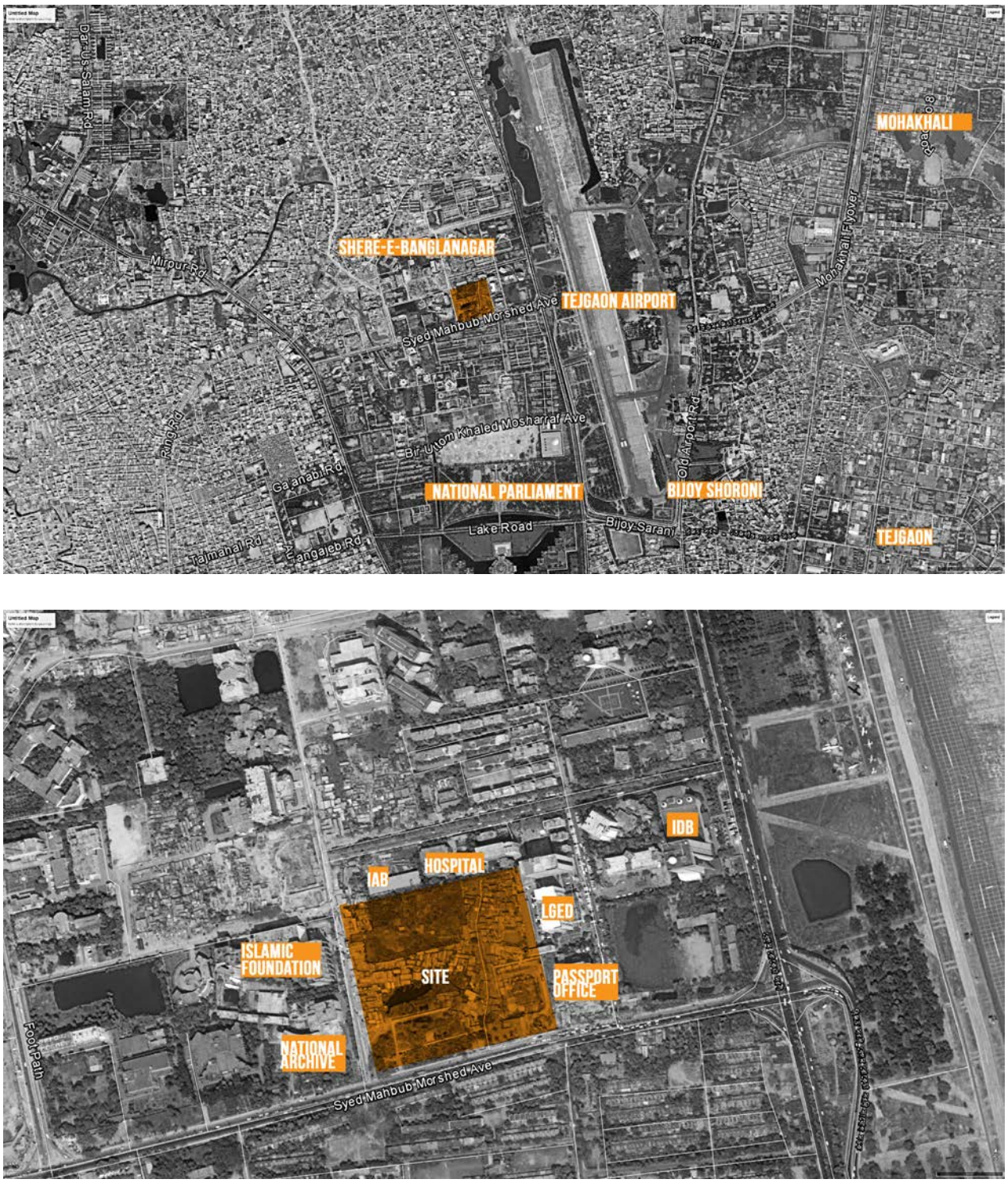


fig 2.1: Location of the site (source: Google Earth)

The site for Puppetry center is place in Agargaon, Sher- e

Banglanagar. It is located on a secondary road opposite of Islamic Foundation.

2.2. Site and surroundings:

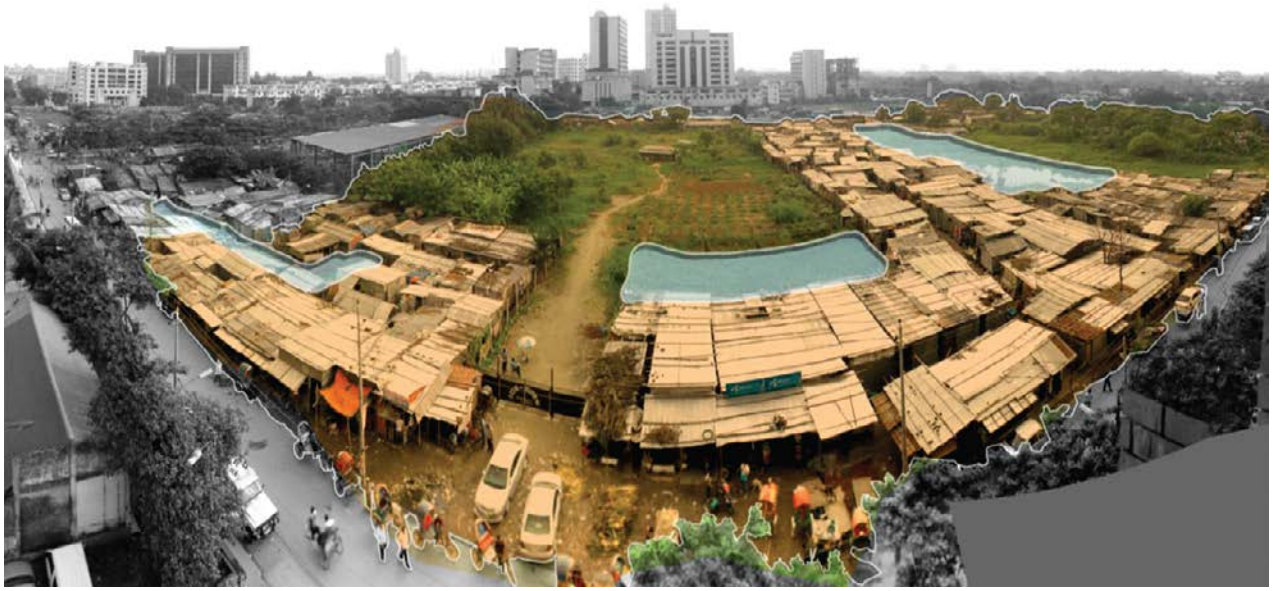


fig 2.2: Panaromic view of the site (source: Mahmudul Islam Chowdhury)

Currently occupied with illegal build slums, tea stalls, temporary Bus stand, and a portion of it used by the police. Maximum land area is now marshy low lying vacant land.

2.3. Environmental consideration:

2.3.1. Green and important places:

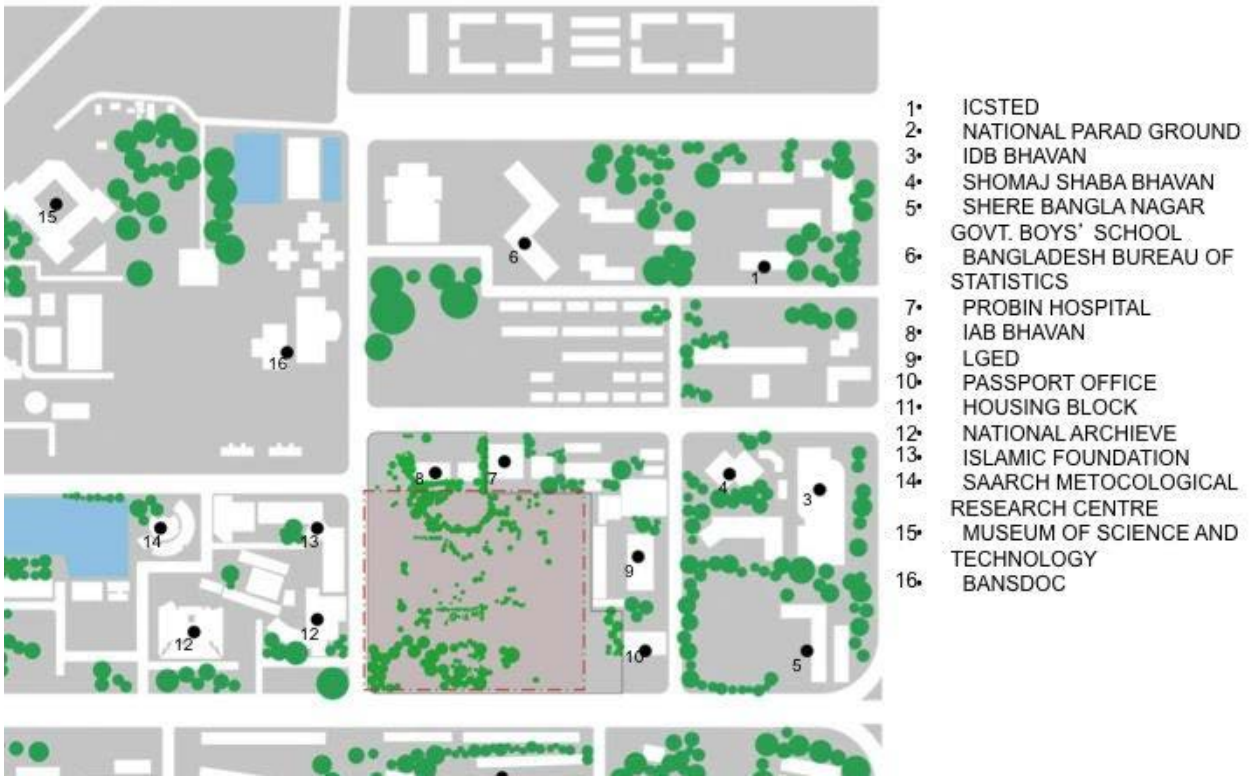


fig 2.3.1: Green and important places (source: Mahmudul Islam Chowdhury)

2.3.2. Existing traffic condition:

fig 2.3.2: Traffic map (source: Mahmudul Islam Chowdhury)

2.3.3. Wind analysis:

fig 2.3.3: Wind analysis (source: Mahmudul Islam Chowdhury)

The site receives constant southern breeze as the building heights of southern side is not more than two storied. West side is blocked with buildings;do not need any Shadingimplementations. It also receives ample amount of north light.

2.3.4. Permeable green:

fig 2.3.4: Permeable green (source: Mahmudul Islam Chowdhury)

2.3.5. Shadow analysis:

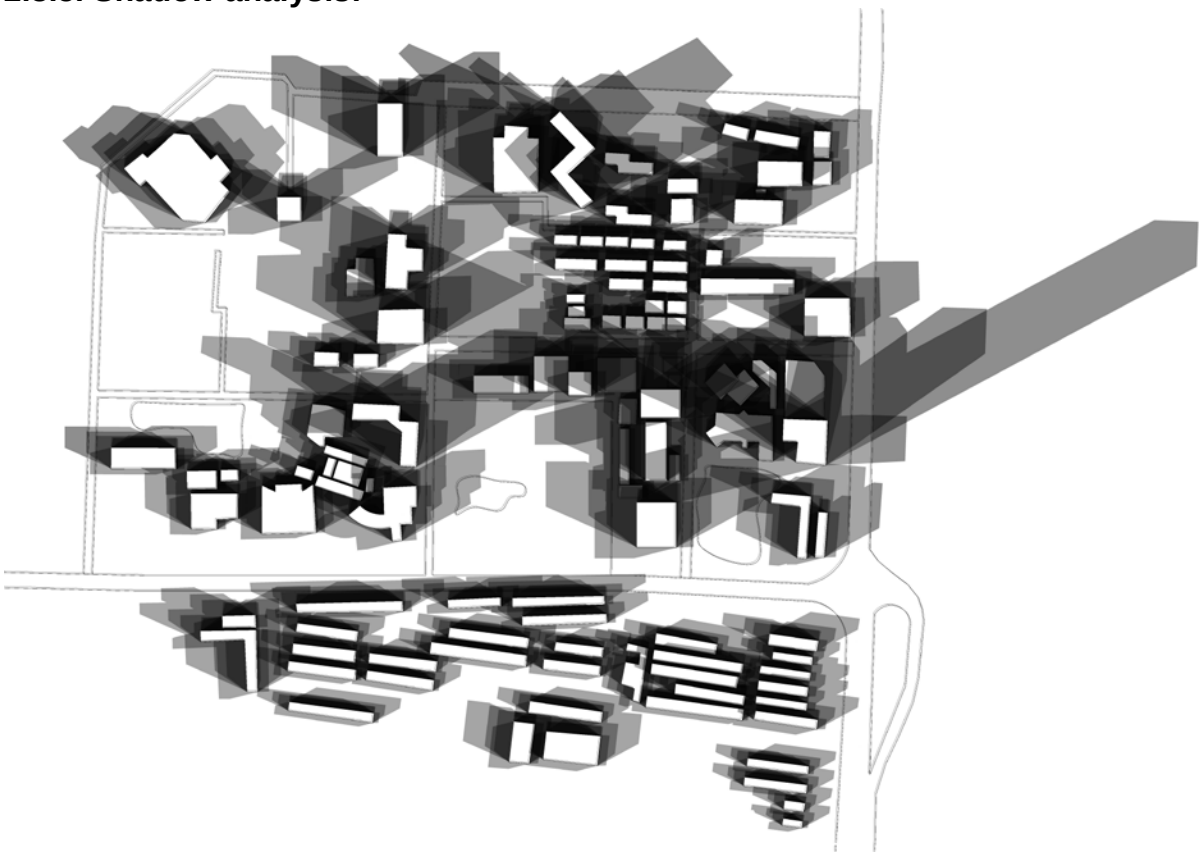


fig 2.3.5: Shadow analysis

The site is surrounded by taller buildings. So shadows casted throughout the day on the site have been recorded and merged to see which area on the site gets maximum shadow.

2.3.6. Zoning:

fig 2.3.6: Zoning (source: Mahmudul Islam Chowdhury)

The site is located in a mix land use of Agargaon to Kahn's master plan. To the south and north , land is used for housing. To west and east is used for civic sectors. The site is surrounded mostly by schools, different offices, conference hall and museum.

2.3.7 Temparature:

Season	Month	Maximum (Degree C)	Minimum (Degree C)
Dry-Summer	March- June	40	35
Monsoon	July- October	30	32
Winter	Nov- Feb	26	28

fig 2.3.7: Temparature chart of Agargaon

(source: http://weather.mirbig.net/en/BD/81/1349452_Agargaon])

fig 2.3.7: Temparature chart of Agargaon

(source: http://weather.mirbig.net/en/BD/81/1349452_Agargaon])

2.3.8 Rainfall:

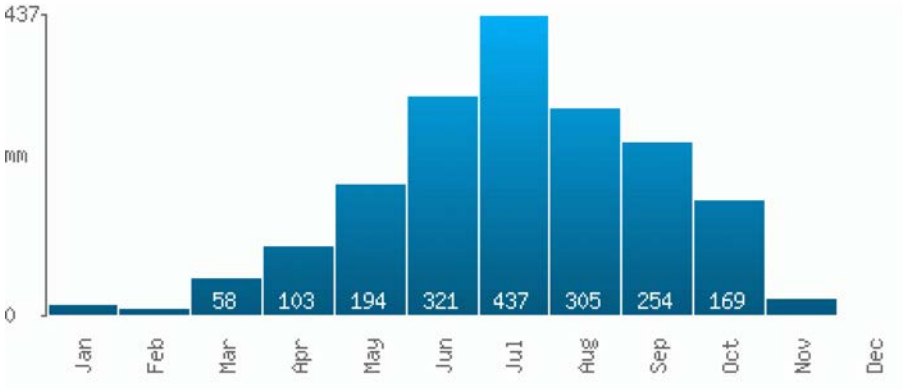


fig 2.3.7: Rainfall chart of Agargaon
(source: http://weather.mirbig.net/en/BD/81/1349452_Agargaon])

2.3.9 Views of the site:

fig 2.3.9: Views of the site and surroundings(From top to bottom)

Views: panoramic viewNorth west corner, Inside the site, Existing settlements in the plot, Southern Side – IAB building under construction.

(source: Mahmudul Islam Chowdhury)

2.4. S.W.O.T. analysis:

- **Strength:**

- Agargaon hasn't fully developed yet, so the site has a potential of becoming a good urban public place and will speed up the process of development.
- The place can be a centre of puppetry of the country.
- In this centre puppeteers from inside and outside the country can perform and research, therefore it will leave a mark globally.
- The site is located in lash of green
- The site has no rush of traffic which is helpful for researcher
- It is located almost centrally in the city and easily accessible
- The adjacent 150 feet under construction road would ensure that in future, potential of the site will increase.
- Huge site is mostly provide vast open green spaces
- The west side is mostly filled with build structures, so it will provide sufficient shade

- **Weakness:**

- The present access road is very narrow
- At night the area becomes insecure
- The site is larger in the east-west side. So it should be handled sensitively
- The site and surrounding is not properly taken care by authority

- **Opportunity:**

- As the area does not have a proper public place, this site will give a chance to flourish the idea of public place in the city
- The other public building around the site would act as positive forces for the centre.
- It will initiate a new kind of development in this area

- **Threat:**

- It the site is not handled appropriately, It might make a bad effect in community
- The environment would be affected if the ratio of build area and green is not properly balanced

Chapter 3: Literature review :

The study focuses issues like puppetry, its aesthetics and mechanism. Key concept of what puppetry is? The types of puppetry and their application. The requirements for the puppet show. How to form the environment for the show

3.1. What is puppetry:

“The actor represents but the puppet is”.

(Puppets and Puppet Theatre, David Curell, 1999. [Original emphasis].)

A puppet is an inanimate object or representational figure animated or manipulated by a puppeteer. It is usually a depiction of a human character, and is used in puppetry, a play or a presentation that is a very ancient form of theatre. The puppet undergoes a process of transformation through being animated, and is normally manipulated by at least one puppeteer or more. A puppet theatre is a universal form of popular dramatic entertainment using puppets. The puppeteers manipulate the puppets, sometimes appearing in public and sometimes working unseen behind the stage. Puppets act in a story or legend before the audience just like human actors do. They are clad in dresses suitable for the roles they are playing. Puppetry and puppet theatre have a long and fascinating heritage. The origins of this visual and dramatic art are thought to lie mainly in the East, although exactly when or where it originated is not known. It may have been practiced in India four thousand years ago, so it is likely that puppets existed before human actors [www.google.com]. Puppetry is a highly effective and dynamically creative means of exploring the richness of interpersonal communication. By its very nature, puppetry concentrates on the puppet rather than the puppeteer. This provides a safety zone for the puppeteer and allows for exploration of unlimited themes through a safe and non-threatening environment for communication. Designing a puppet involves the processes that a performer uses in building a character. The marvellous thrill of puppetry is that puppets by their very nature do things that are not humanly possible. This allows for imagination to explore countless different possibilities. The puppet theatre can create a world of its own with the help of its movement, music and drama for the children to meet the challenges of the new millennium.

3.2. Historical background:

Asia

Bangladesh: Puppetry as Tradition. The tradition of puppetry in Bangladesh dates back at least a thousand years. Three types of puppets are common in Bangladesh: string puppets, rod puppets and bamboo puppets, all made of sola and light wood. They are adorned with cloth and ornaments. Formerly certain members of the Hindu community used to work professionally as puppeteers, wandering from village to village holding puppet shows. Today, however, they have been joined by Muslim puppeteers. Brahmanbaria was famous in the past for its puppets and puppet shows. A skilled puppeteer can manipulate up to three puppets at a time, making them move or dance. Puppet shows may be about social themes and domestic life: marital life, love and bereavement, strife between in-laws etc. Nowadays, puppet shows are also used to awaken social awareness and may focus on education, family planning etc. The artist Mustafa Monwar has played a significant role in the development and modernization of puppetry in Bangladesh. He runs a centre called the Educational Puppet Development Centre (EPDC) which trains people in puppetry. The EPDC arranges puppet shows taking elements from folk ballads, fairy tales, and folk songs.

fig 3.2.1: (Left) Parul and Gittu, the two most popular characters of EPDC

(Right)Parul in another play

India: Puppetry from Rajasthan :

Evidence of earliest puppetry comes from the excavations at the Indus Valley Civilization. Archaeologists have unearthed terracotta dolls with detachable heads capable of manipulation by a string dating to 2500 BC. Other excavations include terracotta animals which could be manipulated up and down a stick. The epic Mahabharata; Tamil literature

from the Sangam Era, and various literary works dating from the late centuries BCE to the early centuries of the Common Era describe puppets. Some scholars trace the origin of puppets to India 4000 years ago, where the main character in Sanskrit plays was known as sutradhara 'the holder of strings'. The Rajasthani Katpuli from India is famous. There are many Indian ventriloquists and puppeteers. Professor Y.K. Padhye was the first Indian ventriloquist, and he introduced this form of puppetry in India.

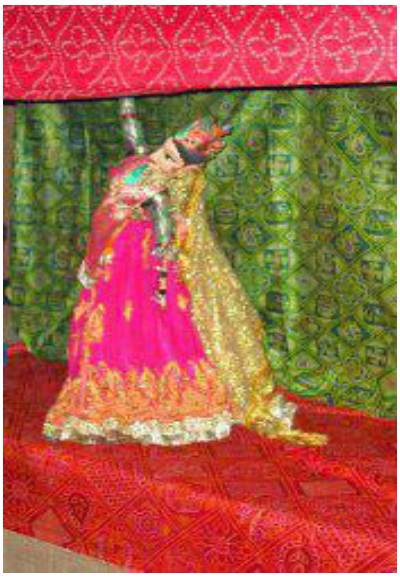


fig 3.2.2: To the left is an Indian marionette from the Rajasthan region [Currell, 1999] and to the right, from Jaipur [www.google.com].

Japan: Bunraku Style:

Japan has many forms of puppetry. Perhaps the most famous is the Bunraku. This developed out of Shinto temple rites, gradually becoming a highly sophisticated form of puppetry. Bunraku owes much to the two great puppeteers, Gidayu Takemoto and Monzaemon Chikamatsu. By 1730 it required three puppeteers to operate each puppet in full view of the audience. Originally, the puppeteers (dressed all in black) would become invisible when standing against a black background, while the torches illuminated only the carved wooden, beautifully painted and costumed puppets. Their presence as kind of 'shadow' figures adds a mysterious power to the puppet. Bunraku traditionally uses three puppeteers to operate a puppet that is close to half life-size. Japan's finest dramatist Monzaemon Chikamatsu, wrote not for the human theatre, but for the Bunraku puppets which once overshadowed the Kabuki.

fig 3.2.3: Bunraku Performance [www.google.com]

Middle East

Turkish shadow puppetry, Karagoz

Middle Eastern puppetry should be seen in the context of its Islamic culture. Karagoz (the Turkish Shadow Theatre) has widely influenced puppetry in the region. It is thought to have passed from China by way of India. Later, it was taken by the Mongols from the Chinese and transmitted to the Turkish peoples of Central Asia. Thus the art of Shadow Theatre was brought to Anatolia by the Turkish people emigrating from Central Asia. Other scholars claim that Shadow Theatre came to Anatolia in the 16th century from Egypt In Iran, puppets are known to have existed much earlier than 1000 CE, but initially only glove and string puppets were popular in Iran. Other genres of puppetry emerged during the Qajar era (18th-19th century BCE) as influences from Turkey spread to the region. The shows often take place alongside storytelling in traditional tea and coffee-houses.

fig 3.2.4: Shadow puppet [www.google.com]

Europe

Ancient Greece and Rome:

In Europe, the puppet drama flourished in the early Mediterranean civilizations and under Roman rule. The Greeks may have used puppets as early as 800 BC, and puppet theatre was a common entertainment — probably with marionettes and glove puppets — in Greece and Rome by 400 BC, according to the writings of the time. In the Middle Ages, puppets were widely used to enact the scriptures until they were banned. Puppetry in Europe has continued as an unbroken tradition, since al long time now. The Greek word usually translated as “puppets” is neurospasta, which literally means “string-pulling”. Aristotle referenced pulling strings to control heads, hands and eyes, shoulders and legs. Archimedes is known to have worked with marionettes. Plato’s work is full of references to puppeteering. The ‘Iliad’ and the ‘Odyssey’ were presented using puppetry. The roots of European puppetry probably extend back to the Greek plays with puppets played to the common people’ in the 5th Century BC. By the third century BC these plays would appear in the Theatre of Dionysus at the Acropolis. In ancient Greece and ancient Rome clay dolls dated from around 500 BC, were found in children’s tombs. These dolls had articulated arms and legs, some of which had an iron rod extending up from the tops of their heads. This rod was used to manipulate the doll from above, exactly as is done today in Sicilian puppetry. A few of these dolls had strings in place of the rods.

Italy - Middle Ages and Renaissance

Italy is considered to be the early home of the marionette. The Christian church used marionettes to perform morality plays. It is believed that the word marionette actually originates from the little figures of the Virgin Mary. Comedy was introduced to the plays as time went by, and ultimately led to an edict banning puppetry from the church. Puppeteers responded by setting up stages outside cathedrals and became ever more ribald and slapstick. Out of this grew the Italian comedy called Commedia dell’ Arte. Puppets were used at times in this form of theatre. Sometimes Shakespeare’s plays were performed using marionettes instead of actors. The ubiquitous Mr. Punch originated in Italy. A puppet version of Pulcinella, a buffoon in the Italian Commedia dell’ Arte, was carried throughout Europe by the wandering showmen and a similar character became established in many countries. The French version was introduced to England in 1660 with the return of Charles II; it became Punchinello, soon shortened to Punch, and

enjoyed such popularity that he began to be included in all manner of plays. By 1825, Punch was at the height of his popularity, and the story in which he played had taken on its standard basic form. Italy - 18th and 19th century. The eighteenth century was a vital period in the development of all Italian theatre, including the marionette theatre. Whereas the rod puppet was mainly of lower-class origin, the marionette theatre was popular in aristocratic circles a celebration of the Age of Enlightenment. The effects, and the artful and complex construction of the puppets, the puppet theatres, and the puppet narratives, were all enormously popular, particularly in Venice. In the 19th century, the marionettes of Pietro Radillo became even more complex. Instead of just the rod and two strings, Radillo's marionettes were controlled by as many as eight strings, thus increasing the control over the individual body parts of the marionettes.

Fig 3.2.5 (Left) An Italyian puppet [www.google.com]. (Right) Pulcinella, a large marionette [Currell,1999.]

Great Britain

In England, puppets were certainly known by the fourteenth century and, during the Civil War, when theatres were closed, puppet theatre enjoyed a period of unsurpassed popularity. By the early eighteenth century it was a fashionable entertainment for the wealthy, and in the late nineteenth century England's marionette troupes, considered to be the best in the world, toured the globe with their elaborate productions. The traditional British Punch and Judy puppetry traces its roots to the 16th century to the Italian

commedia dell' Arte. The figure of Punch derives from the stock character of Pulcinella, hich was Anglicized to Punchinello. He is a manifestation of the Lord of Misrule and Trickster figures of deep-rooted mythologies. Punch's wife was originally "Joan. In the late 18th and early 19th centuries, the familiar Punch and Judy hand puppet show which existed in Britain was performed in an easily-transportable booth. Resurgence in puppetry was pioneered by The British Puppet and Model Theatre Guild in the early 20th century. Current centres of British Puppetry include: The Little Angel Theatre in Islington, London; Norwich Puppet Theatre; The Harlequin Puppet Theatre, Rhos on Sea, Wales; and the Biggar Puppet Theatre. Biggar, Lanarkshire, Scotland. British puppetry now covers a wide range of styles and approaches. Don Austen is one of many British puppeteers who have extended British puppetry, and a number of theatre companies including Horse and Bamboo Theatre, Green Ginger, and Impossible integrate puppetry in their highly visual productions. Political satire was covered through the medium of the puppet in the ground-breaking British television series Spitting Image, from 1984 to 1996. Puppetry has also been influencing mainstream theatre. Several recent productions combine puppetry and live action, including 'Warhorse' National Theatre and 'Madam Butterfly' English National Opera.

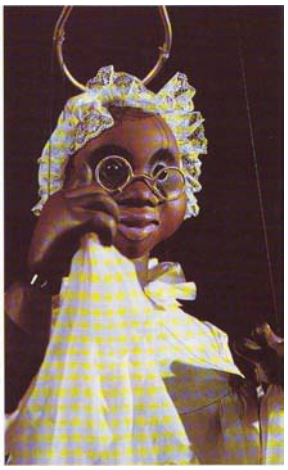


Fig 3.2.6 Marionettes of the Little Theatre, London [Currell, 1999.]

Puppetry has also been popular in many other. There are both ancient and modern forms of puppet in Russia, Brazil, Egypt, China, Korea, the Philippines, Myanmar, Vietnam, Malaysia, Indonesia, Sri Lanka, America, Germany and Austria. Therefore, puppetry has a long tradition and played important roles all over the world.

3.3 PUPPET AND ITS INVOLVEMENT OF AUDIENCE :

The survival of puppet theatre over some 4000 years owes a great deal to man's fascination with the inanimate object animated in a dramatic manner, and to the very special way in which puppet theatre involves its audience. Through the merest hint or suggestion in a movement the spectator is invited to invest the puppet with emotion and movement, and to see it 'breathe'. A puppet is not an actor, and puppet theatre is not human theatre in miniature. In many ways, puppet theatre has more in common with dance and mime than with acting. Puppet theatre depends more upon action and less upon the spoken word than the actor does; generally, it cannot handle complex soul-searching, and it is denied many of the aspects of non-verbal communication that are available to the actor. But the puppet, still or moving can be just as powerful as the actor. The actor represents but the puppet is. The puppet brings to the performance just what is wanted and no more; it has no identity outside its performance, and brings no other associations on to the stage. The puppet is free from many human physical limitations and can speak the unspeakable, and deal with taboos. The power and potential of the puppet has attracted artists such as Moliere, Cocteau, Klee, Shaw, Mozart, Gordon Craig, Goethe and Lorca who have all taken a serious interest in this art — one of the most liberating forms of theatre.

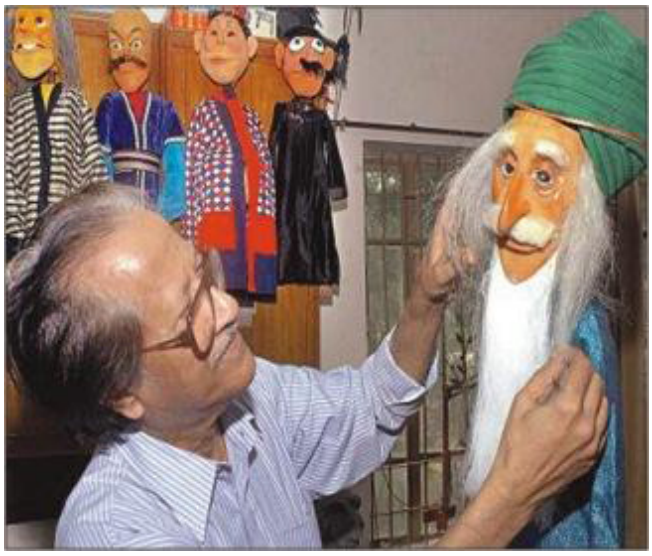


Fig 3.3.1: Mustafa Monwar with his own puppet.

3.4 TYPES OF PUPPETS:

Most types of puppet in use today fall into four broad categories — hand and glove puppets, rod puppets, marionettes and shadow puppets — but there is a variety of combinations. Among these are glove-rod, hand-rod, rod-hand and rod-marionette puppets. There is also a wide range of other related techniques, from masks to finger puppets, from the toy theatre to animated puppet film.

3.4.1 Hand and Glove Puppet:

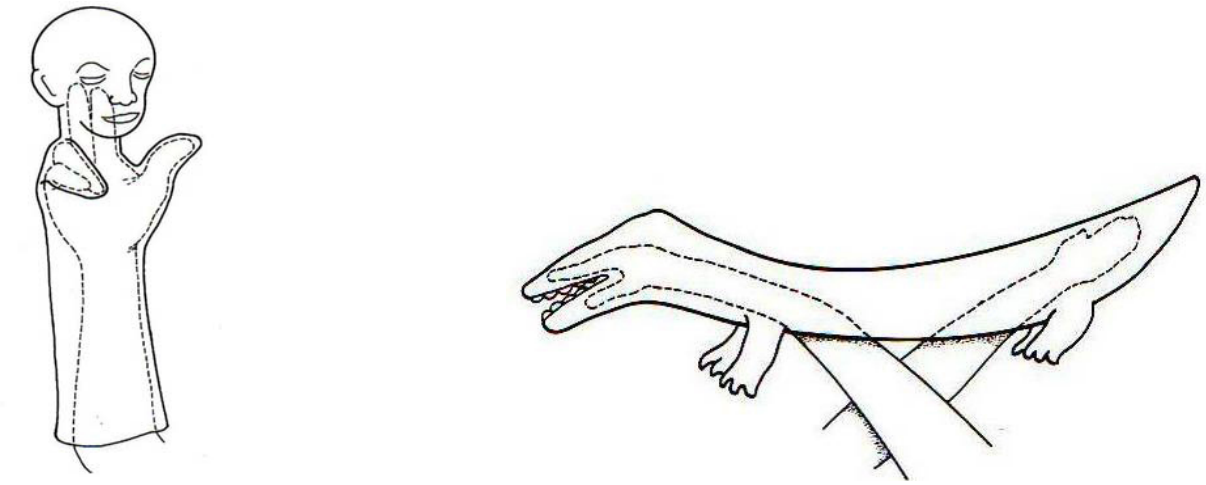


Fig 3.4.1 A basic glove puppet and a two-handed hand puppet [Currell, 1999.]

The glove puppet is used like a glove on the operator's hand; the term 'hand puppet' is sometimes used synonymously but here it describes figures where the whole hand is inserted into the puppet's head. Glove puppets are quite simple in structure but hand puppets often have a costumed human hand, or arms and hands operated by rods. These puppets, although limited in gesture to the movement of one's hand, are ideal for quick, robust action and can be most expressive. The live hand inside the puppet gives it a unique flexibility of physique. Glove and hand puppets are usually presented from within a booth. Control of glove or hand puppet is essentially very simple although a considerable amount of practice will be needed. Holding the puppet over the head for a long period of time needs a good deal of stamina.

Glove Puppet:

Fig 3.4.2.1 (Left) A Punch character cast in fibreglass for the Puppet Centre Collection and (right) a normal glove puppet, [Currell, 1999].

Glove puppets are constrained in size and design by the need to contain a human hand. The operator's wrist becomes the puppet's waist, so it is important to have a long 'glove' almost to the elbow, so that the arm does not show while performing. The neck is usually slightly bellbottomed, to assist in securing the glove body. The recommended method of operation is with index and middle fingers in the neck, thumb in one arm, and ring and little fingers in the other. The puppet's hands may be made as part of the glove, separately in fabric, or sculpted, modelled or moulded, with a hollow wrist or cuff; its arms are attached securely to the cuff and the puppeteer's fingers are inserted to control the hands. This allows more character in the shape of the hands but more practice may be needed to achieve expressive gesture and to handle props effectively. Glove puppets may be given legs. Carve, mould or model the foot and lower leg, and use a fabric thigh. Such legs usually swing freely; you can control them directly with the fingers of your free hand inserted into holes in the back of the thighs, but this limits you to operating only one puppet at a time. For animal characters, make a simple glove with an animal head, covering the glove with a human costume, synthetic fur fabric, or other suitable material. Alternatively, a complete animal body that rests on the wrist and forearm may be made of cloth and stitched to the glove.

Hand Puppet :

Fig 3.4.2.2(Left) Oscar the Grouch, a hand puppet designed for Sesame Street and (right) normal hand puppets [www.google.com]

The term ‘hand puppet’ is used here to describe a puppet in which the operator’s whole hand is inserted into the head. It usually has a moving mouth, operated with the thumb in the lower jaw. It may be a simple sleeve of material with a head attached, sometimes called a ‘sleeve puppet’, which is suitable both for human and animal characters. A stuffed body and dangling legs may be attached to the sleeve. Two-handed puppets are made in the same way, leaving underneath a hole large enough to insert crossed arms; such a body is often stiffened by a buckram or foam-rubber lining. If the hand puppet needs to maintain a rigid body shape, it may be made on a framework of strong card or wire netting (chicken wire), which is padded and covered. A hand puppet may have a disproportionately large head and a very dominant mouth, hence its other name, ‘mouth puppet’. One hand effects head, mouth and body movements. The puppeteer’s other arm and hands are costumed. Alternatively, an additional operator may provide the puppet’s hands. Puppet hands usually have only three fingers — two of the operator’s fingers are fitted into one of the puppet’s — and this tends to look quite natural on the puppet. Hand puppets tend to be large, so the head should be made of a light material, such as foam rubber or poly styrene, covered with fabric or synthetic fur fabric. The head is made with a separate lower jaw joined by a strong fabric hinge.

3.4.2 Rod Puppet

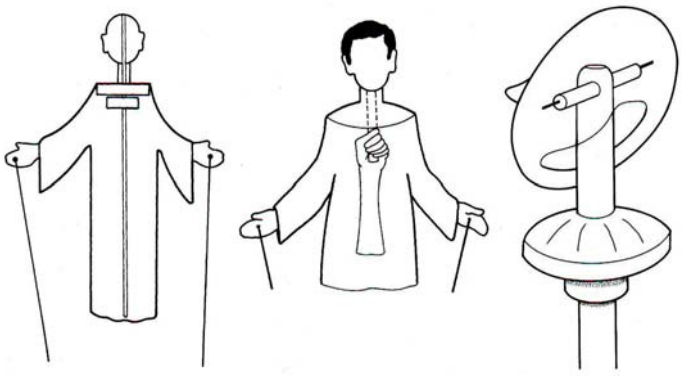


Fig 3.4.2.1 Basic rod puppets, [Currell, 1999]

The rod puppet is held and moved by rods, usually from below but sometimes from above. Rod puppets vary in complexity, ranging from a simple shape supported on a single stick to a fully articulated figure. They offer potential for creativity in design and presentation, and their range of swift and subtle movements enables them to deliver anything from sketches to large dramatic pieces. The body is designed to be supported by a central rod that is free to turn, but may be fixed if desired. Even a head and a robe with no body or limbs can be effective, and the natural movement of the fabric contributes to this. A rod puppet frequently has a head, shoulder block, arms, hands and robes, but no body or legs, as it is usually visible only to waist or hip level. If it has no body, appropriate padding under the costume assists characterization.

Fig 3.4.2.2 (Left) A rod puppet with legs: Lorenzo for Theatre of Puppets and (right) rod puppet from Japan, [Currell, 1999].

A short central rod gives more scope for movement, as the operator's wrist becomes the puppet's waist, but a long rod enables the puppet to be held much higher. It is a simple matter to attach the head to the central rod to permit it to turn and look up and down. If it is only to turn, the head may be constructed with the neck attached, then secured on the central rod. The rod turns inside the shoulder block/body. If the head is to move vertically, constructing it without a neck is necessary but with an elongated hole in its base; it pivots on the top of the central rod that forms the neck. A pull-string or a piece of stiff wire is then used to control vertical movement. The rod is also able to turn inside the shoulder block or body. In each case, a supporting 'collar' is attached to the rod under the shoulder block or inside the body; this holds it in place on the rod, but permits turning. Hand movement is effected by thin but stiff metal rods. If the puppet has legs, they usually swing loose; often, an additional puppeteer is needed if they are to be manipulated.

Fig 3.4.2.3 A central control rod with a supporting collar to hold the shoulder block permits turning [Currell, 1999].

The main feature of a rod puppet control is the central rod that supports the figure and is integral to the method of construction. Additional controls are added as necessary, to move the head, the hands, and occasionally, the legs.

Fig 3.4.2.4 Manipulation of hand wires to bring the puppet's hands together or to achieve wide hand gestures of a rod puppet [Currell, 1999].

Stages and Scenery for Glove, Hand and Rod Puppets

Most glove or hand puppets are presented within a booth, usually without a proscenium arch. Rod puppets tend to be contained within a stage of larger proportions. Staging units may be adapted in a variety of ways. The height of the booth depends upon the height of the puppeteers. It is best to perform standing, with the play-board just above your head.

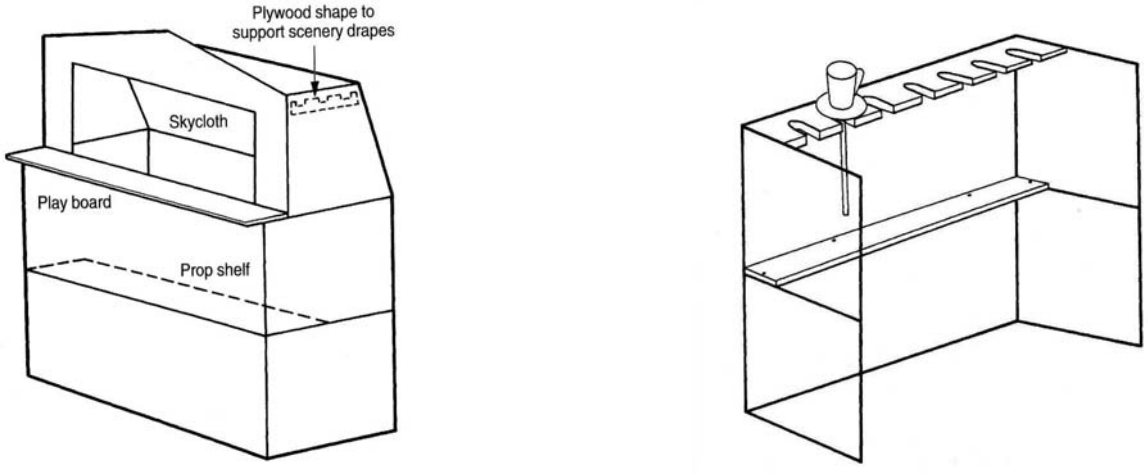


Fig 3.4.2.5 A proscenium booth (left) and a play-board, slotted to accommodate props on rod (right),[Currell, 1999].

Some performances without a booth will require a portable 'play board', a surface on which to establish some of the action. A simple framework supporting a plywood playing surface is sufficient. It will need wheels or casters with a locking mechanism, or wheels at one end and blocks of wood at the other, to prevent it moving unintentionally. Covering the front surface with another sheet of plywood will give a tidier appearance.

Lighting for Glove, Hand and Rod Puppets

In principle, these puppets need side- lighting and back-lighting from the wings to illuminate puppets and sets. Overhead floodlights can be useful, but footlights are not recommended. Front-of-house profile spotlights are helpful, but can emphasize the small size of the puppets. Illumination of a cyclorama or sky-cloth helps to create depth. The following advice shows how this is often translated into practice.

Open Booths:

A small booth can be lit with reflector floodlights, spotlights, or sealed- beam (PAR) reflector spotlights mounted on wooden extension arms attached to the front corners of the stage. Often there is little space in the booth, but clip-on domestic fitments with

floodlights or spotlights may be introduced to high light the backcloth or sets. For larger booths, fresnels and other spotlights mounted on telescopic stands just in front and to either side of the stage are efficient. Introducing lighting from the wings and below the backcloth may be helpful, but it has to be ensured that shadows of the puppeteers are not cast on the sets. A front-of-house profile spotlight mounted on a stand is often helpful. If conditions permit, overhead floodlighting may be used, but a travel ling show will seldom find a suitable means of securing it.

Proscenium Booths:

It is difficult to illuminate a small proscenium booth with lighting in the auditorium, and lighting within the booth itself may be too close to the puppets. The most satisfactory solution is to mount small spotlights to the top corners of the booth, outside the proscenium arch, and carefully directed on to the acting area. Achieving adequate illumination of both the play-board and the mid-stage areas is necessary. Backcloth illumination is achieved with strip-lights. With a larger proscenium booth, the main lighting has to be mounted inside the booth in keeping with the principles outlined above. Overhead floodlights may be secured inside the proscenium or from a batten supported in front of the backcloth. Some lighting may be placed outside the booth — a front-of-house profile spotlight and sidelights will be fine, if they are carefully directed through the proscenium arch. Some stages are designed with a projection like a curtain pelmet outside the booth, above the proscenium arch; this houses small fresnels or spotlights, and allows light to be shone into the booth very precisely. Floodlights tend not to be used outside a booth, as their light will spill on to the curtains.

3.4.3 Marionette:

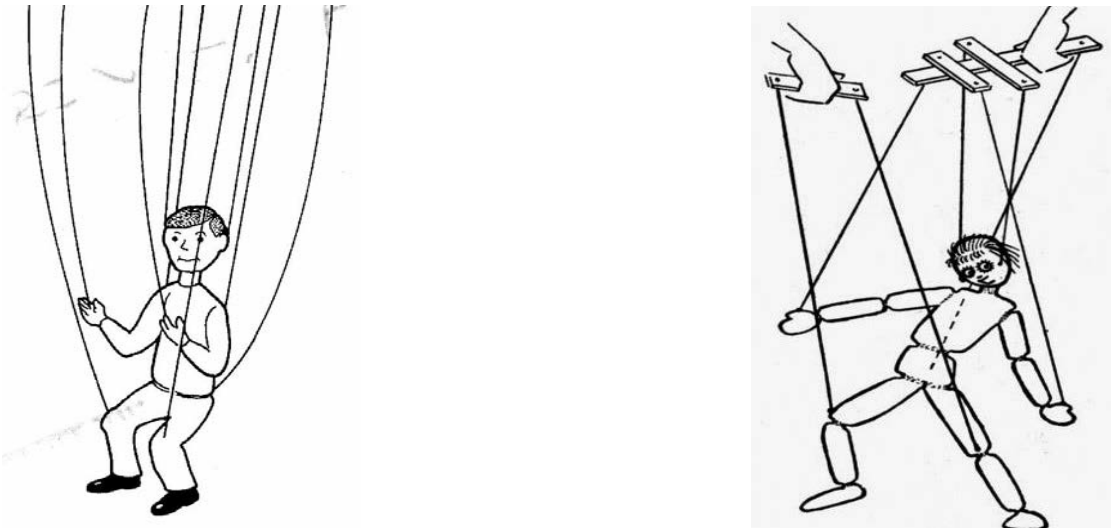


Fig 3.4.3.1 A basic Marionette [www.google.com].

The marionette is a puppet on strings, suspended from a control held by the puppeteer. Performances can be graceful and charming, and fast and forceful action is generally avoided. For manipulation, the experienced puppeteer draws upon the marionette's natural movements to great advantage. The essence of good marionette construction is balance and distribution of weight, coupled with flexibility of movement and joints restricted appropriately to allow adequate control. It is important, to design the marionette as a whole, to ensure a suitable match of materials that will provide the balance required.

Fig 3.4.3.2 (Left) A wooden marionette carved for the Puppet Centre Collection [Currell, 1999] and (right) Japanese marionette[www.google.com].

The head moves most effectively if it is made with the neck separate from both head and body. However, it may be made with the neck attached or, exceptionally, the neck may be made as part of the body, and joined inside the head for a particular purpose. A body is normally jointed at the waist but its movement may be restricted as required. Making the body without a waist joint limits a puppet's movements, particularly its walk. Hands and feet are best constructed in the same material as the head. Although the wrist joint is usually designed to allow flexibility, the ankle joint is somewhat restricted, to pre vent the toes dragging as the puppet walks. It is important that the pelvis is not too light as this will affect the puppet's walking action. Most controls require two-handed operation — an upright control is recommended for 'human' characters, and a horizontal control for animals.

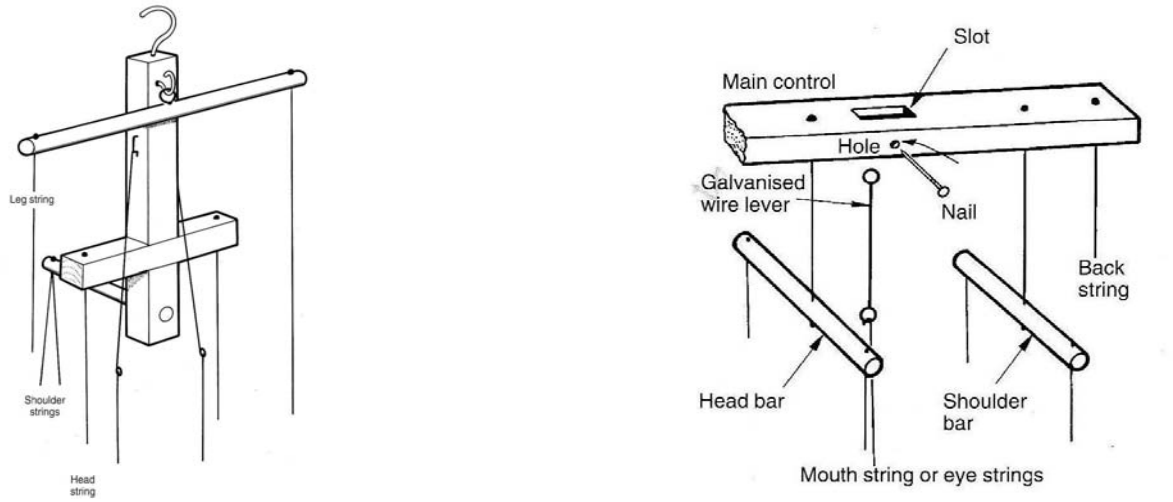


Fig 3.4.3.3 The upright control (left) and the horizontal control (right) [Currell, 1999].

Marionette variety acts are frequently presented on an open stage with the puppeteer in view. The large marionette stage with a proscenium to hide the operators tends to be used for plays in more permanent situations: size, portability and setting-up time are factors that have influenced the trend towards open-stage performances.

Stages and Scenery for Marionettes:

Marionette presentations generally need to be raised, either by setting up on a platform, stage or rostra blocks, or by the use of a built-in feature of the puppet staging. Totally open-stage per forming, in which the puppeteer appears fully visible on stage with the marionettes, is used most frequently for cabaret and variety acts. It provides greater scope for movement and action than the more traditional forms of presentation.

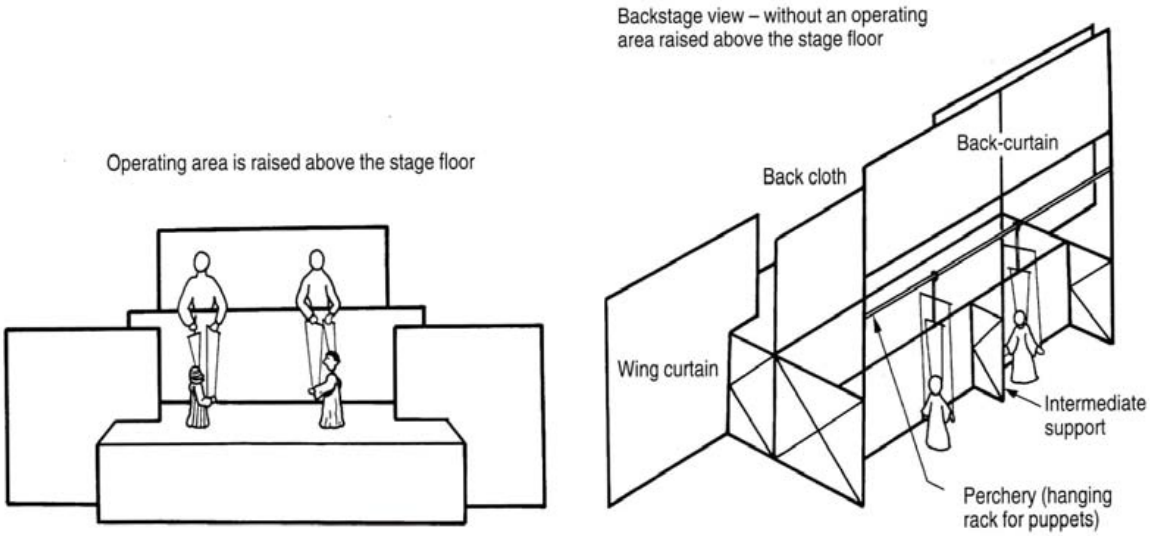


Fig 3.4.3.4 An elaborate open stage with a raised stage floor. The operating area may be on the same level or rose above the stage floor, [Currell, 1999].

Most performers operate on a stage with a backcloth suspended from a cross-bar, known as a leaning bar, which is usually about waist-high to the puppeteer. It is desirable to have a stage floor covering to provide a good surface for puppets to walk on without making too much noise. A hanging-rack for marionettes off-stage, a preacher, is also needed. The two basic types of staging used for marionettes are an open stage and a proscenium stage. And for scenery the methods such as two-dimensional scenery, an inset and a screen sets are mostly used.

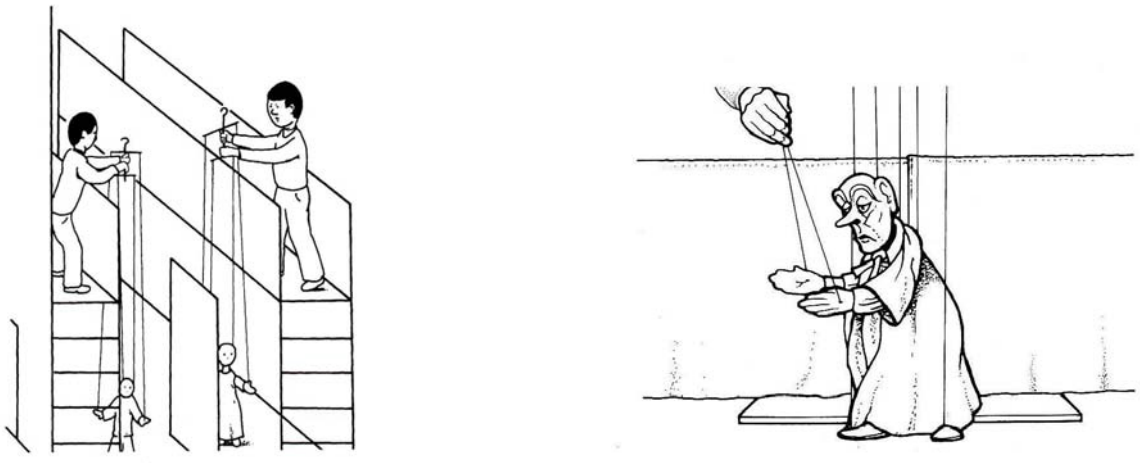


Fig 3.4.3.5 A proscenium stage with a high bridge above the stage floor (left) and the theatre as an open stage for marionettes (right), [Currell, 1999].

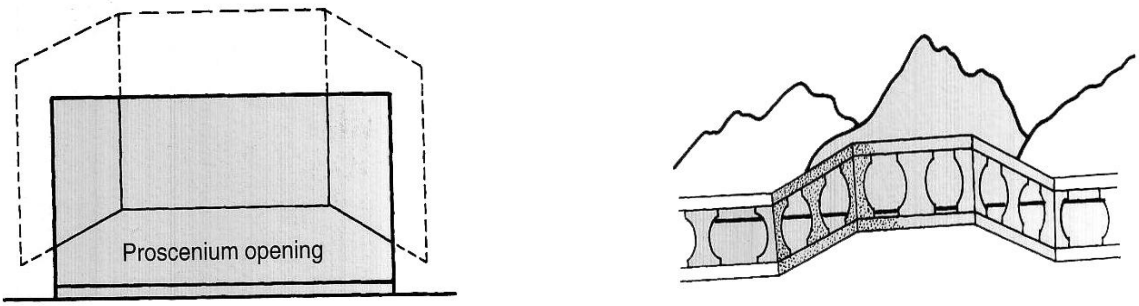


Fig 3.4.3.6 An inset, used to screen off part of the stage (left). A screen set creating a three dimensional background (right),[Currell, 1999].

Lighting for Marionettes:

In stages with no bridge, the puppets can be operated at no more than arm's length from the backcloth, so it is difficult to light puppets and sets separately, unless lights can be positioned behind wing flats without impeding puppet entrances and exits. When there is a bridge, it is possible to place lighting under the bridge floor, or in a well below stage level, to light the back-screen and increase the sense of depth on the stage. When backcloths cannot be illuminated separately, it helps if they are not too light in colour, to enhance the visibility of puppets, and reduce the effect of unwanted shadows.

Open Stages:

For small stages, two lights — one to each side of the stage and cross-lighting the acting area — are the minimum requirement. However, at least two lights to each side are recommended and for larger stages, more side-lighting may be needed.

Proscenium Stages:

These stages utilize sidelights, over head lights, at least one front-of-house profile spot light and, occasionally, a ground-row for illuminating the backcloth. Front of-house lights to the sides of the auditorium illuminate the apron of the stage, which would otherwise be in shadow. Overhead lighting may be attached to the inside of the proscenium, or under the floor of a bridge.

3.4.4 Shadow Puppet:

Fig 3.4.4.1 (Left) A design for an articulated shadow puppet, [Currell, 1999].

(Right) Shadow puppet cut-out, [www.google.com].

Shadow puppets are normally fiat cut-out figures that are illuminated while held against a translucent screen. The audience on the other side of the screen watches the shadows created. Traditionally made of parchment or hide, they are now usually made of strong card or thin plywood, sometimes of translucent acetate, and occasionally wire. They are not difficult to make, and can look surprisingly delicate and intricate on the screen. Shadow puppets are controlled from below or behind, usually by means of wires or rods. It is common practice to support and move the figure by one main wire. Extra wires or strings may be added in order to effect particular movements.

Fig 3.4.4.2 Effecting shadow puppet movement through a single control rod allowing the hands and the legs move freely, [Currell, 1999]

The convention is to represent the figures partly in profile, partly straight on, which translates effectively on the shadow screen. The Javanese wayang kulit figures, for example, are designed with the head and legs depicted as a side view, while the body is viewed from the front. Slightly turning the body helps characterization.

Fig 3.4.4.3 A Javanese wayang kulit shadow puppet (left) and Mr. Punch, cut by Lotte Reiniger, the first full-length animated film maker (right), [Currell, 1999].

Staging for Shadow Puppets:

Both the table-top theatre and the flexible staging units, into which a frame with a screen attached is easily inserted, are suitable for shadow puppet staging. Other types of stage may also accommodate a shadow screen or combine shadows with other puppets. Normally, the screen is attached to the audience side of the frame so that the lower cross-bar provides a ledge on which the puppets can walk. The screen may have a ledge on which to rest the controls of characters which are ‘in repose’ on the screen, while the others are manipulated. Puppets with controls fixed horizontally are rested with the controls on the table, and the figures over the edge, to avoid bending and other damage. Beautiful scenes can be achieved by simple means. Solid black scenery is best made from stiff card or three-ply wood. Multiple layers of papers or cards can be used to achieve a sense of depth.

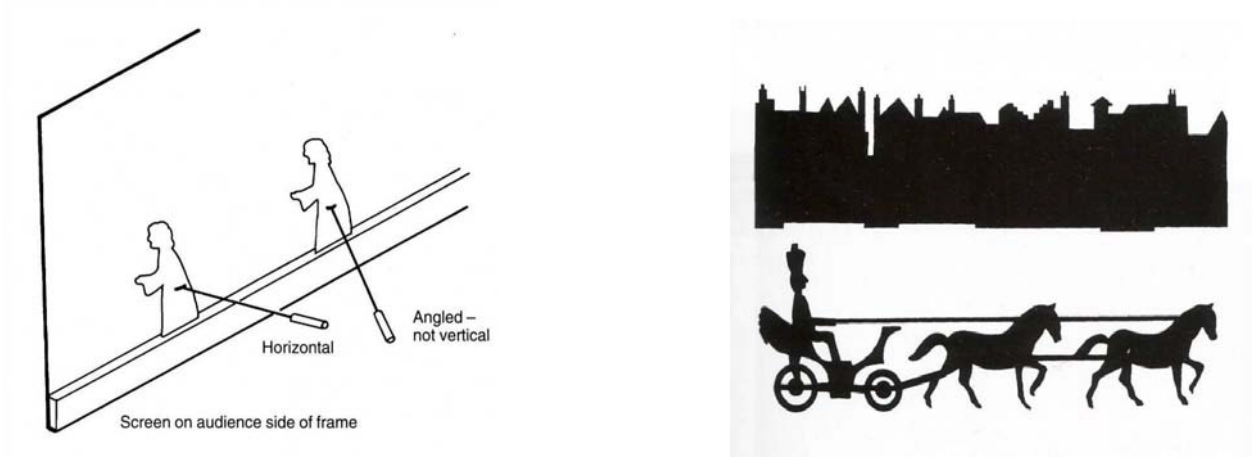


Fig 3.4.4.4 Shadow puppets can be operated from directly behind or from below (left). A horizontal piece helps to create depth in a scene for shadow puppets (right), [Currell, 1999].

Lighting for Shadow Puppets

In principle, it is possible to use any source of light for shadow play, but it is normal to use only one source at a time, as two lights produce a blurred shadow. Some professional performers use a selection of lights and projectors, fading from one to another for specific purposes. Although 'live' light is the traditional method, and the flickering light gives added movement to the figures, safety considerations make it unacceptable for most purposes. It is possible to operate from behind, as well as below, the screen only when using daylight, a reading lamp, or a fluorescent strip-light. Powerful light sources are required to operate from below, but it will also allow increasing the size of the shadow by moving the puppet towards the light. With other lights, the image will tend to fade when this is done.

3.5 Technical information:

This section outlines the technical requirements needed for each of the function that are to be provided to the design later and also the rules that are to be followed before the design process.

3.5.1 Shooting Floor Complex:

The workshop for cinematography and sound recording are usually referred to as shooting. The

services in the shooting floor complex are those concerns with the following:

- The preparation of sets: The sets in which shooting takes place art direction, construction, scenic painting, set dressing, property and electoral.

- Artists: Casting, dress design, wardrobe and make -up.
- Shooting: Assistant direction, continuity, lighting camera, sound and still photography.
- Optical effects: Sound effects, model work and other specialized services.
- Rehearsal: Before shooting commences.

A total shooting complex can be identified only once all its functions and requirements are in perfect assimilation.

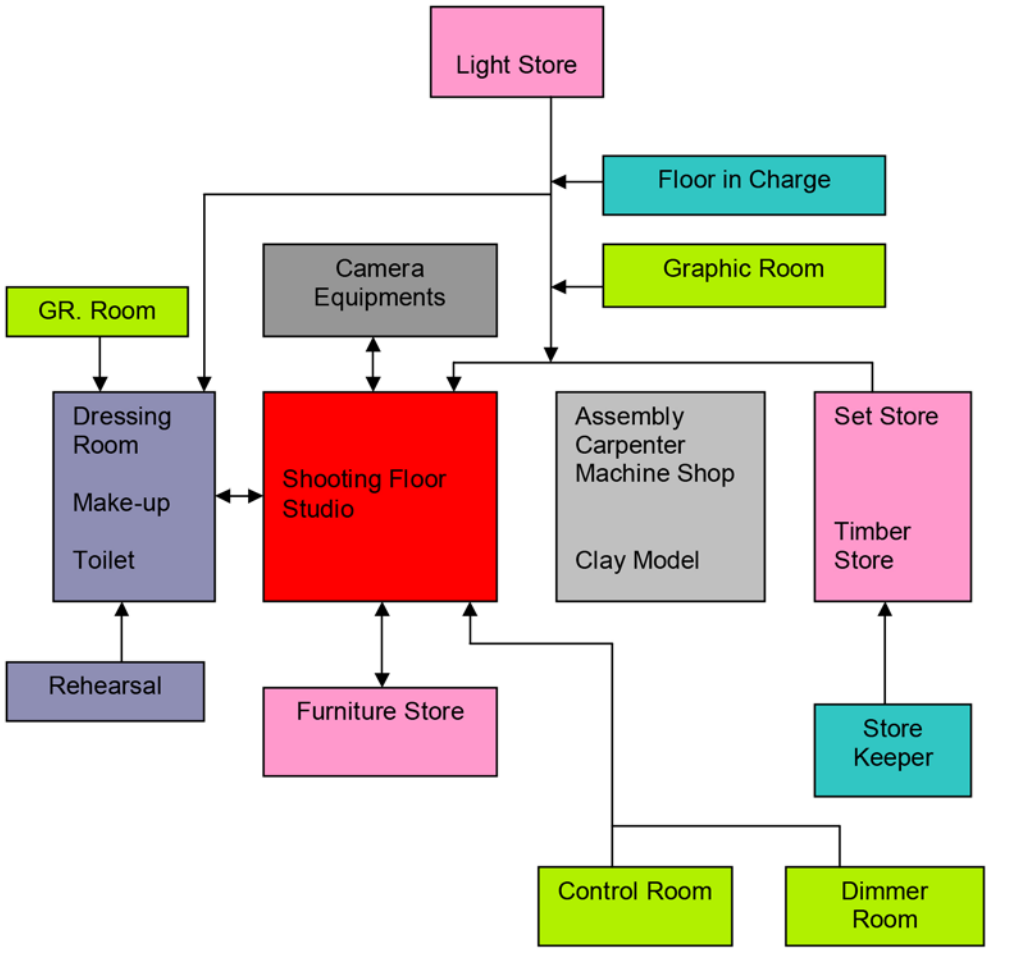


Fig 3.5.1.1 Flow Chart for the Shooting Floor

Shooting floor:

- Function: The film is shot here with movie cameras. It is large enough to accommodate sets and high enough to allow lamps for photographic purpose to be hung from above, and also cat-work is there for positing of the camera and cameraman from above properly.

- Furniture: Seats and set materials.
- Equipment: Movie cameras, doll, booms, lights, cyclorama curtain
- Environment: Sound proof, artificial lighting and ventilation. They are briefed below:
  - Light Store
  - Floor in Charge
  - Camera Graphic Room
  - Equipments
  - Shooting Floor
  - Studio
  - Assembly
  - Carpenter
  - Machine Shop
  - Clay Model
  - Set Store
  - Timber
  - Store
  - Store
  - Keeper
  - Dimmer
  - Room
  - Control Room
  - Furniture Store
  - GR. Room
  - Dressing
  - Room
  - Make-up
  - Toilet
  - Rehearsal

Lighting:

No one can doubt the artistic effect which lighting has on a film, those dark until corners and heavy shadows, adding fear and suspense to the horror movie, are as obligatory as

diffused colourful lighting for a musical. Between the two there is a subtle range of effects obtainable and the aim should always be to light the scene to suit the subject

Position Lights: Lighting is used at an illumination level suited to the emulsion speed and within the contras range recommended for the film. Because the eye is accustomed to a main source of light (the sun outdoors, or a window or lamp indoors) light is used to reproduce this, which established the light direction and provides the main illumination and mulling. To reduce hard shadows, filler light of less intensity is placed to one side. Directed towards the camera on to the subjects More than one lamp may be necessary from each direction and others are required to illuminate walls and parts of the set, to create atmosphere, In addition, similar lighting has to be placed to cover each position into which the actor moves.

2. Environment :

It is sound proof, properly heated in winter, colleen simmer, efficiently ventilated equipped with an adequate electricity supply and wired for sound, The floor must be absolutely level so that cameras can move freely in any directions without vibration. It must be possible to fix sets firmly to the floor. For acoustical reason the wall roof must be properly treated. Matte surface will be required.

3.Dimmer Room:

- Function: control of lighting for shooting
- Furniture: Instrument rack, revolving chairs.
- Equipment: Control panel.
- Environment: Soundproof, artificial lighting and ventilation

4.Set Preparation Area:

Function: Making set materials for the film, Planning of this part of the complex is arranged so that work phrases from the art director’s design through the various stages of constructor’s machine shops, carpenters joiners plaster, and or paint shop in the order in which work will be carried out until finally the set can be erected on the stage, Supplies of timber, plaster, paint, nails, clay moulds, screw, doors and window and other necessary furniture. In fact anything by the craftsman in the manufacture of the sets should be easily available but subject to proper control. These requirements demand stores situated near at hand and

adjustment to the main floor.

- Furniture: Tables, racks.
- Equipment: Carpenter and painting tools.
- Environment: Natural light and ventilation.

5.Make -Up Room:

- Function: Performers who are shot on the film takes make-up here. Dressing room may also be included here for male and female separately.
- Furniture: Mirrors, Rotating, chairs, fixed tables.
- Equipment: Make-up kits.
- Environment: Sound treated, artificial lighting and ventilation.

6.Equipment Store:

- Function: Storage of equipment's.
- Furniture: Racks.
- Equipment: Audio-visual equipment's, switching devices, etc.
- Environment: Artificial light and ventilation.

7.Lighting Store:

- Function: Storage of light stands.
- Furniture: Racks.
- Environment: Artificial light and ventilation.

Fig 3.5.1.2 Shooting Studio, [www.google.com]

3.5.2 Sound Recording Studio:

Each service require an area in which to carry out it's function and it is these areas and services together with the studio itself which comprise the studio. This space is to be used for music scoring, background recording, dubbing and re-recording. In a very large sound complex these functions are carried out in separate theatres. As the requirements mostly overlap and to avoid duplication of spaces and equipments. These different recording needs man be combined into one studio.

It must be large enough to seat a full orchestra used for sound and provided with microphone booms and or like stands to enable correct positioning of microphone.

Lighting:

For sound recording studio lighting needs not to be highly specialized, but complete artificial lighting is required.

Ventilation:

Air conditioning system is required as fenestration is absent or kept to a minimum. Low air speeds have to be used to achieve the noise level. The noise level created by an air handling system should be about 5 to 15 dB lower than the desired level of background noise in order to avoid interference of, ventilation noise with the sound to be recorded. Ventilation and air conditioning noise-reducing components:

- Absorption of noise wall lining.
- Reduction of noise by means bends.
- Division of noise into several branches of the duct system.
- Using heavy gauge metal for ducts properly braced and stiffened.
- Supporting ducts by resilient hangers.
- Acoustical separation of ducts from walls and floors at points of penetration, by means of resilient packing with fibre glass, rubber, and neoprene and by caulking the exposed end of the packing.
- Using boxed -in ducts between enclosures or in shafts.
- The use of properly shaped, streamline-contoured and carefully distr. abutted arils at the discharge end of the duct with adequately low air velocity.
- Spreading noise into the room at supply or return air grills.
- Absorption of noise within the room supplied with air.
- The installation of quietly operating equipment, Ferro removed from the studio.

Acoustical Requirements:

The theatre/studio is constructed with special acoustic properties, sound baffles hinged to the walls assist to recorders in controlling the liveliness of sounds. Acoustical problems of a special nature arise in the design of rooms used primarily for microphone pick -up. The special nature of his problems is primarily a consequence of the difference between monaural and binaural

herring. In view of this, following are the most important acoustical requirements that should be considered in the design of the studio:

- **Optimum Reverberation Time**

The optimum reverberation time for a studio as a function of studio size can be determined from a graph. Since the studio is to be used for diverse sound recording programs, they are to be equipped with means for varying the reverberation characteristics either critically or by varying the total absorption

- **Sound Insulation:**

Extraneous noises that ate unnoticed when one is listening directly OT the source may be prominent and annoying the' sound is picked up be a microphone and then reproduced. Hence the noise level in the studio has to be exceptionally low-no greater than 25dB to 30dB. As the studio is to be located in a relatively noisy metropolitan area, the noise insulation requirement is high. The control room should be well insulated from the studio. This requires double or even triple galls windows between the two rooms. A tight window seal is essential and it must be mentioned. By using galls panes of two different thicknesses, by in inclining one of the panes slightly and by adding absorbing material around the peripheral surfaces separating the panes the danger of transmitting noise at one more resonant frequencies of the window is greatly reduced.

- **Diffusion:**

Proper diffusion of sound is one of the prime acoustical requirements for this type of studio; Microphone placement becomes less critical in a studio having proper diffusion as it is in studio having too little diffusion. There are two principal means of providing diffusion in the studio. By a non-symmetrical distribution of absorption materials, for exemplum by patches of acoustical material seated over the well surfaces. One common method of obtaining an irregular distribution of absorptive matures is to use wall surfaces of perforated boards selected areas of which are backed up by an absorptive blanket.

Convex surfaces made of thin plywood is much more effective in' Spreading out' or diffusing reflected sound than is the flat one.

- **Resonance:**

The resonant frequencies are determined approximately by the studio dimness. When all the room dimensions are greater then than about 35' (the wavelength of the lowest frequency of sound), the resonant frequencies lie very close together and there is little danger that the sound will be modified noticeably by three presences. The size of the studio is determined principally by the number of performers it is to accommodate and the size and distance of the projected image from the projector room volume of about 50,000 to 1000,000 cf., is regarded as the minimum size for unto 50 performers. As regards room proportions, the ratio of any two dimensions of the studio should not be a whole number or very close to a whole number. A ratio of length to width to height of about 5:4:3 for small studios and 8:4:3 for large studios is recommended.

- **Technical wiring:**

Extensive provision has to be made for power and audio (also video but to a lesser extent) writing connecting the studio to control suites and equipment areas. Power wiring, which may include low voltage power, has t be run in separate trouncing from is often concealed within the acoustic finishes and all perforations of the studio enclosure have to be sealed airtight to avoid sound transmission.

- **Other Services:**

Large production studios will require compressed air, gas, water (including derange) and a smoke detection system in addition to electrical services.

- **Re-recording:**

The operation of mixing and recording all kinds of sounds carefully controlling them is known as re-recording. It is done to get the final sound track which will include all kinds of sound required. Special sound effects like the sound of rain, sea, busy traffic etc are often pre-recorded. These are played in the follower room and mixed in the console room. At the time of re recording the recorders has to see the projections of the movie and screens are needed.

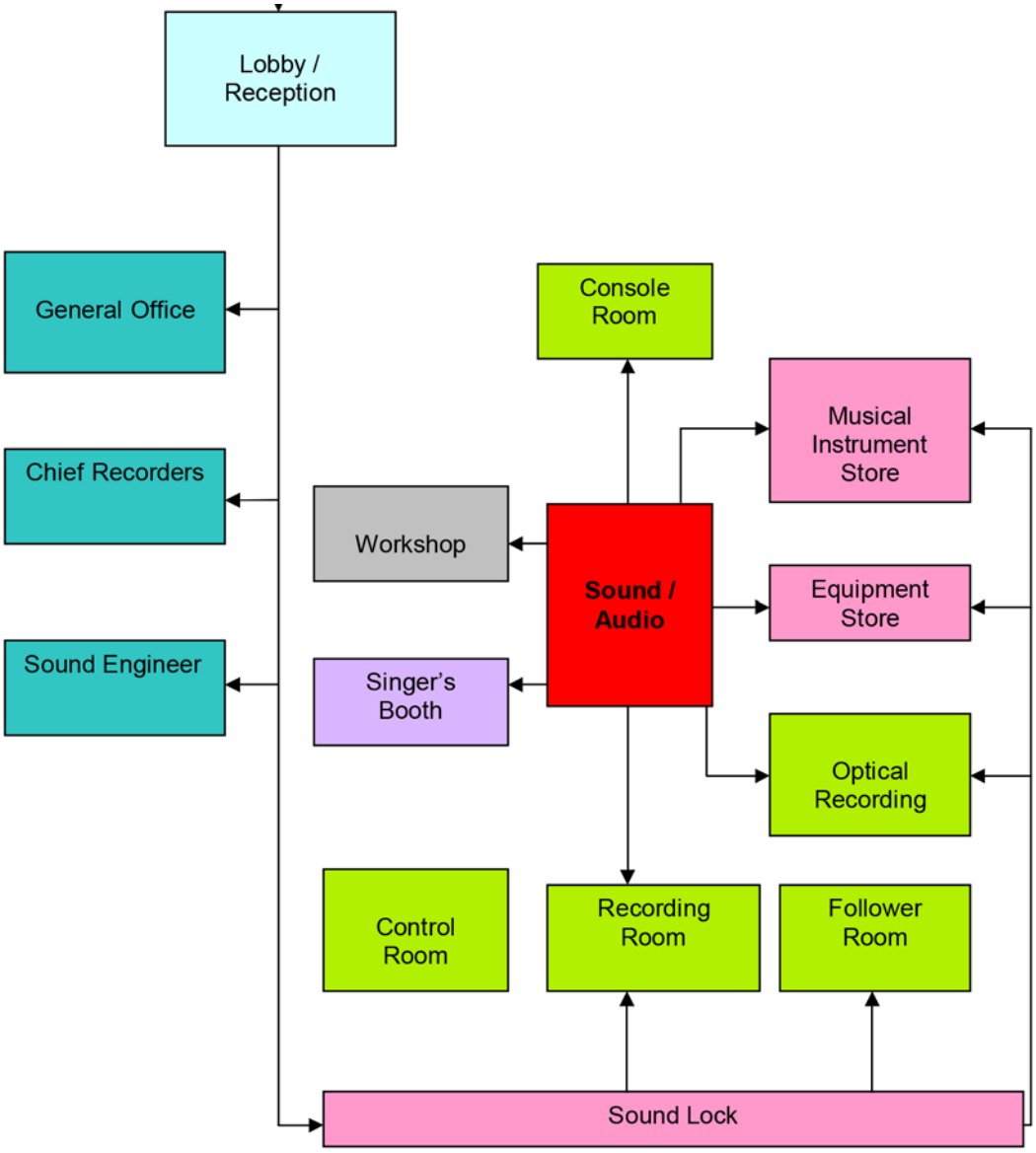


Fig 3.5.2.1 Sound studio flow chart

Control room:

- Function: Mixing of sound from different channels and forwarded as a combined channel sound to the recording room.
- Furniture: Revolving chairs, tables and equipment racks.
- Equipment: Audio mixing console, keyboard, loudspeakers.
- Environment: Sound proof, natural/artificial light, air-conditioned.

Recording Room:

- Function: Recording the mixed sound. For recording purposes, projector and recording machine must be linked so that they run together of exactly the same

speeds. This ensures that the recorded sound and picture will be in synchronization.

- Furniture: Film fixing table, revolving chairs, racks.
- Equipment: It should be provided with full range of recording equipment to match whatever type is being used in the stage. Magnetic sound recorder, headphones are also required.
- Environment: Sound proof, natural/artificial light, air-conditioned.

Console room:

- Function: Mixing all the sounds and effects.
- Furniture: Revolving chairs, tables and racks.
- Equipment: Audio mixing console and speaker.
- Environment: Sound proof, artificial light and ventilation.

Optical Recording room

- Function: Transferring from magnetic to optical sound.
- Furniture: Revolving chairs, tables and racks.
- Equipment: Optical sound recorder and sound reproducer.
- Environment: Natural light, air-conditioned.

Follower room

- Function: Reproduction of all sounds and effects for mixing.
- Furniture: Film fixing table, revolving chairs, racks.
- Equipment: Follower or sound reproducer.
- Environment: Natural light, air-conditioned.

Singer's booth

- Function: Performance of solo artists.
- Equipments: Microphone and headphones.
- Environment: Sound proof, natural/artificial light, air conditioned.

Fig 3.5.2.2 Sound Recording Studio, [www.google.com]

3.5.3 Editing Section:

Editing is one of the most important tasks to be carried out during the production of a film. The function of the editing department is to receive all rushes including sound end select from them sections of the film-cast which when joined together till the story smoothly and sufficiently and meet the international of story smoothly and sufficiently and meet the international of producers and directors. The job of the editor can be divided into the following:

- Rush editing.
- Sound editing.
- Synchronization of picture and sound.
- Final editing.

After receiving the developed negatives from the laboratory the editor cuts and joints the negative for rush printing. This is done on a table known as the up winder table. Then cutting and joining of the rush print is done to make loops to be used for dubbing. After operation is carried and picture are to be synchronized. This operation is carried out by a movable editing machine with the help of a synchro-meter, after getting the final sound track final editing is done. An essential per-condition for good editing is to have a dust free environment. The editing rooms should be free from dust. Air conditioning system should be provided; Editing can be done in natural light.

3.5.4 Movie Theatre/Auditorium:

It is needed for viewing the animated plays made by the puppeteers and the other involved in it. The audiences are usually the children & all other visitors from outside and even from foreign countries.

Design Requirements (Basic Considerations)

For the satisfactory design, plan and section must conform to a number for following guide lines to determine seating areas and to establish position of walls and shape of floors.

- Each spectator must have the whole stage in up room over the heads of those in front of them.
- The first row for seat should be no closer to the then a position determined as follows: the angle formed with the horizontal by a line from the top to the projected picture to the eye of the viewer in a front row seat, should not exceed 33°- the top level - of the projected picture should be the same for all systems of projection.
- The vertical angle beyond which ability to recognize standard shapes falls off very rapidly is approximately 30°. This angle at the spectator's position establishes the distance from the closest seats to the screen or to the person/object on the stage.
- The maximum viewing distance should not be greater than twice the width for the widest picture/stage to be projected.
- The width of the seating pattern should vary from 1 time the widest projected picture at the first row to 1.3 times at the row farthest from the screen.
- The heads of the people in the front should not obscure more than 12.5% of the total height of the screen/stage.
- When the screen is set high, the front row of seats must be set back to preserve 30° sight line to the top of the screen.
- Projected picture width should not be exceeding the following:
- Standard 35 mm film: 35', Cinemascope: 45' Audience will not chose locations beyond a line approximately 1000 to the curtain at the side of the proscenium.

Shape and Size

There is a distinct advantage in having a relatively small audience with a maximum size projected image. The size and position of the screen must relate to the size and shape of the auditorium.

Screen and projection optics

It is important to keep the minimum projection angle. It should not exceed 10 degrees. A slight curvature in the width of the screen surface increases screen light reflection and to provide better dispersed screen illumination. The surface should be semi-matte. The curvature should be of a radius equal to about 1.25 times the projection distance

Stage

Here stage is required for minor purpose like speeches facilities, preview theatre of this type of institute is to be equipped with both stage performances and cinema exhibitions a dimensional may wall be vied from the side, a flat picture can be seen intelligibly only within the view must be within the limits of the cone, The human eye comprehends detail only within a limited cone angle about 2.5 mini of age and the length of the subtending the arc i.e. image width, varies with its distance from the observer.

Setting Arrangement

Picture screen may be flat and matte ‘white light reflected uniformly and the setting area can be rectangular plan. Occupants of all seats are visually related to the performance when the seats are oriented toward the stage. The centre of curvature is located on the centreline of the auditorium. Budgetary limitation may dictate that seats be in straight rows to simplify construction. These rows can at least be related to the centre of the attention or stage by being placed or chords of the optimum row curvature. In the design of floor slopes for seating it is necessary to establish the physical dimension of the seated person and standards for vision of the screen image. The maximum gradient for an floor without step is 1:10 and the maximum slope for stepped seating is 35.

Row spacing and aisles

Aisles must be employed which make no provision for continues row. Many a bad sight line has resulted from putting the maximum legal no of seats usually 14, into each row in every section. For purpose of seeing radial aisles are best. Minimum spacing between rows should be 3” with 1” thick chair backs, 40’ seating scheme can also be used. However, the capacity is about the same for the 34” and 40” spacing because of the different aisle arrangement.

Sound system

The screens are to be perforated to allow for sound transmission from speakers paced behind the screen. A depth of 5’ should be provided behind the screen for the speakers.

Projection room

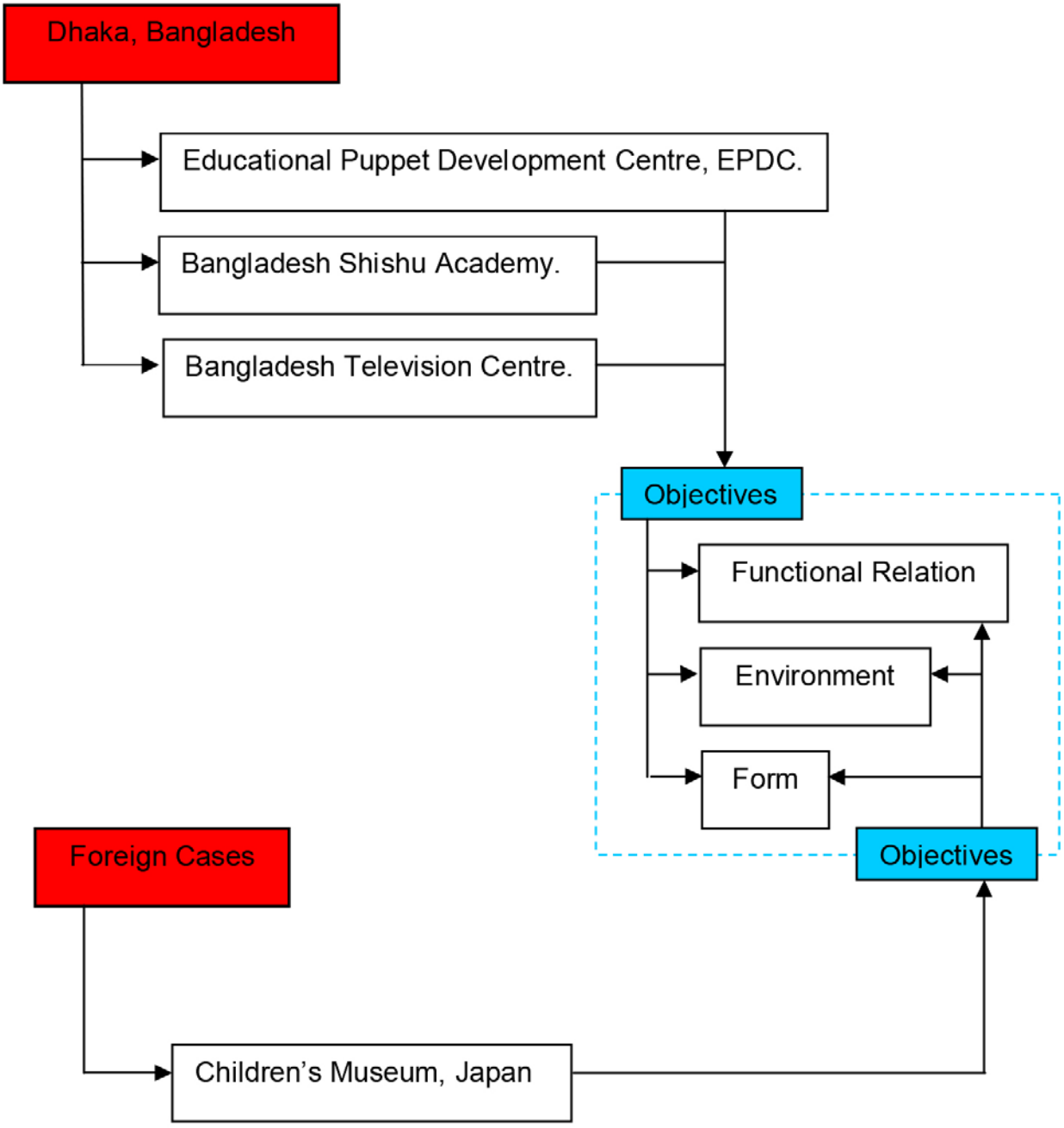
The usual code requirements are 48 sft. For the first projection machine and 24 sft., for each additional projector. A separate rewind room adjacent to the projection room is preferable. Rewinding is done on a small table observation ports opening to both the projection room and the theatre permit a single operator to supervise a presentation easily while rewinding used film. Ports may be glazed to prevent Sound from entering the Theatre.

Equipment

Essential equipment for commercial and preview cinemas includes either two projectors, or one projector with long running equipment, panel board, sound equipment volume control, amplifier and power units.

Chapter 4: Case studies

This section contains the study on the existing institutions that are suitable examples for the project. It also shows the different factors that had been taken into account for a clear understanding of the depth of these types of existing facilities.



4.1 EDUCATIONAL PUPPET DEVELOPMENT CENTER (EPDC)

Year of Establishment : 1997

Location : Dhanmondi Residential Area - 01, Dhaka.

Financial Support : The Royal Norwegian Embassy, Dhaka.

Number of Employees : 36 staff members

Built Area : 7500 sft.

The artist Mustafa Monwar is at the helm of this centre as its director. Through his devotion, commitment and hard work, he created and introduced the modern concept of puppetry in Bangladesh. He developed different manipulation and presentation techniques and he has been trying to achieve the recognition that art of puppetry deserves in our country. The centre trains people in puppetry as well arrange puppet shows taking elements from folk ballads, fairy tales, and folk songs. The main objective of EPDC is to entertain, educate, inform people about their tradition and cultural heritage, moral values and social responsibilities using the medium of puppet theatre.

Objectives of EPDC

- To arouse awareness among both the adult and children.
- To revive traditional format with modern presentation techniques.
- To organize and conduct touring teams with live puppet shows.
- To organize workshops for puppet making and puppet manipulation and presentation
- technique.
- To organize exchange visit to exchange, absorb and assimilate from the progress made in other countries.
- To develop puppetry as an art media.
- To use puppetry as an effective tool in learning process.
- To develop training courses for puppeteer and teachers.
- To organize seminars and other motivational activities.
- To develop and produce educational video programmes.

Main Functions

- Shooting studio
- Workshop
- Audio and video recording room

Project Findings

The centre is especially concerned with modes of instructing and developing multimedia programs with puppet so it helps understand the sequence of works and space requirement for designing such a project. It contains the functions within a 3- storied building and the various functions are arranged in different layer, which gives a guideline for arranging such type of function in an accurate building in accordance with their specifications.

Limitation

Since an old building is converted as the centre for puppet production and shooting studio, most of the function are very compactly accommodated and are in small scale.

Fig 4.1.1 One of the new puppet of EPDC on production process

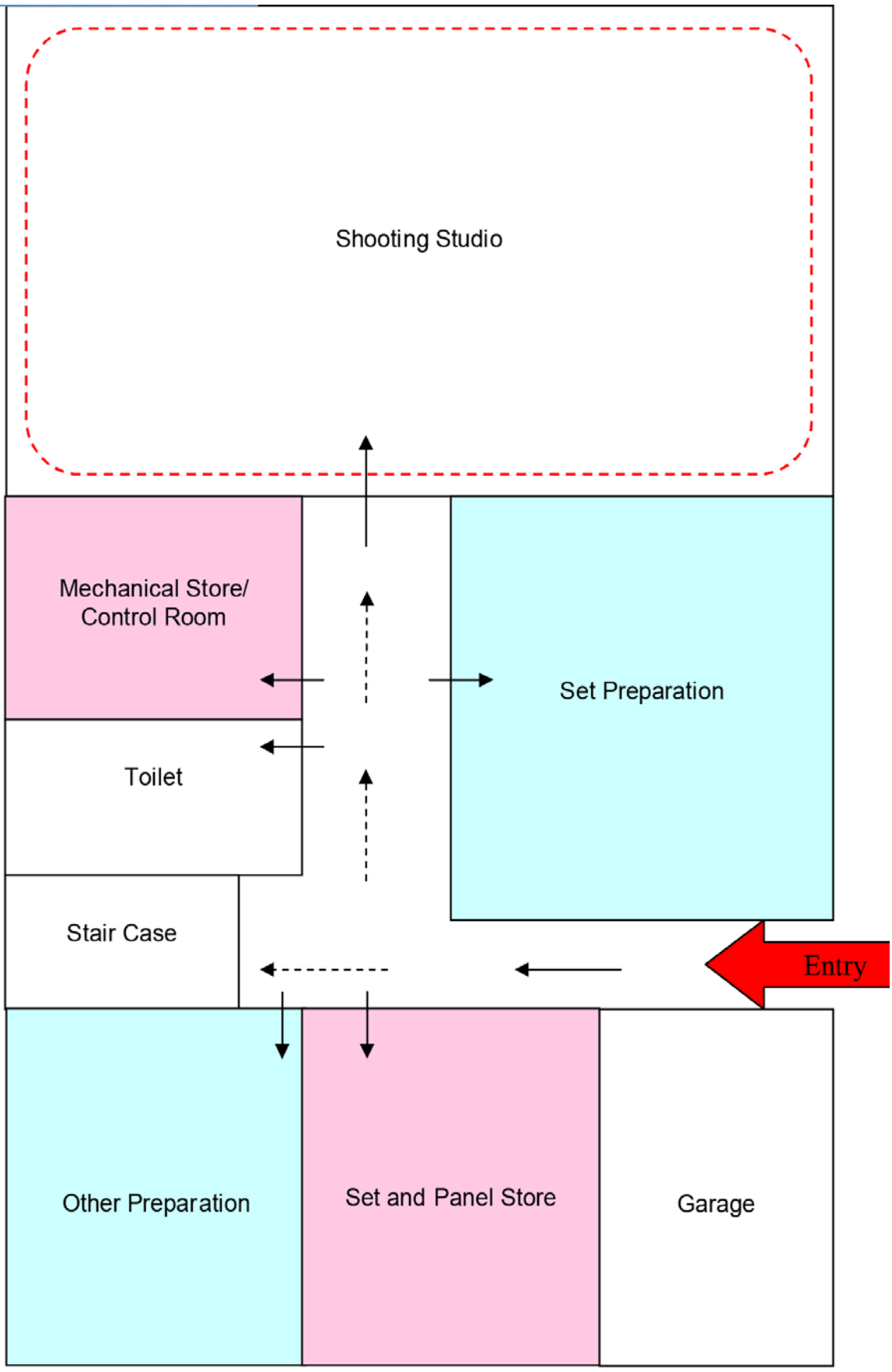


Fig 4.1.2 Schematic of Ground Floor

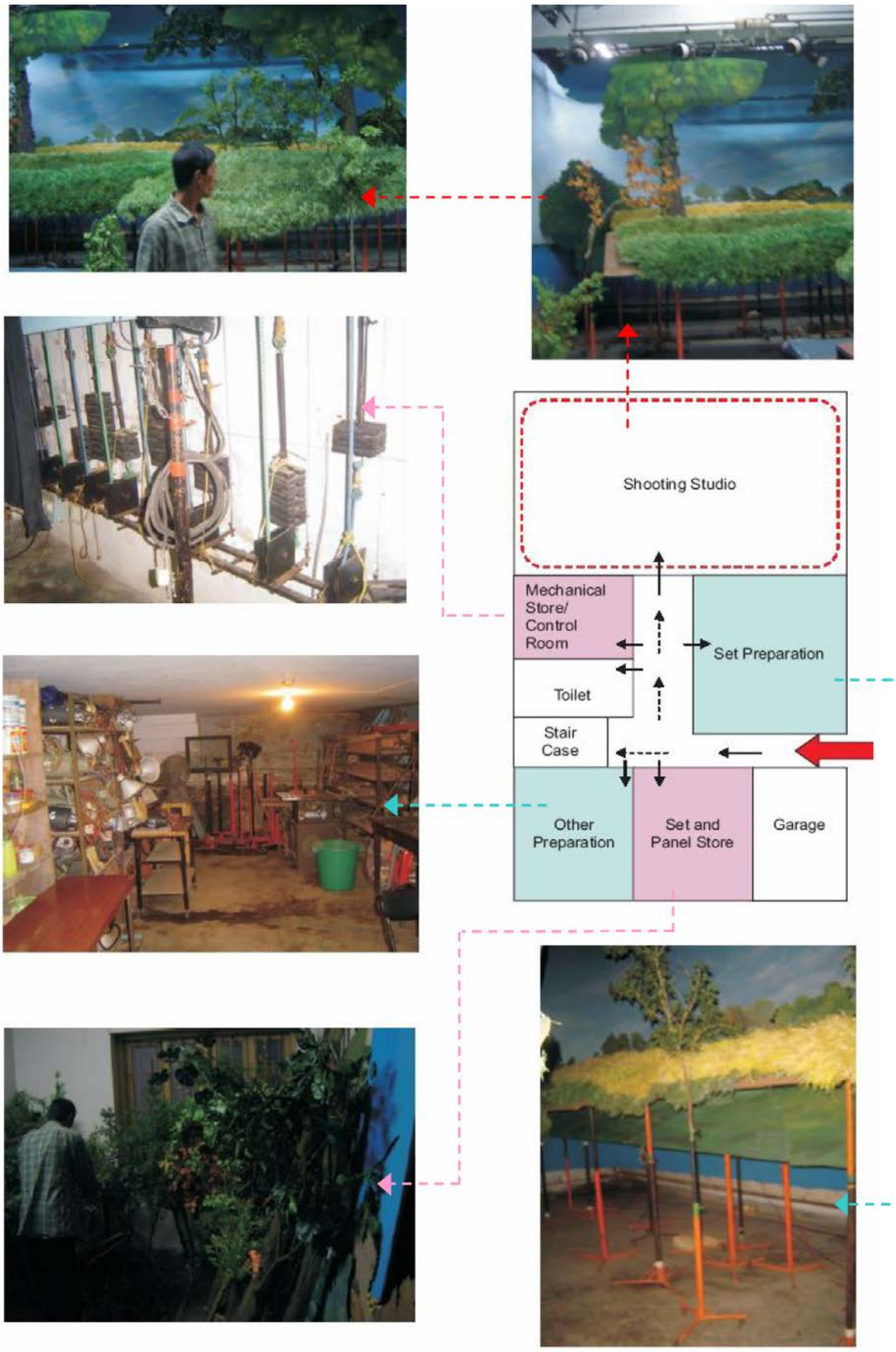


Fig 4.1.3 Pictures showing respective rooms of ground floor

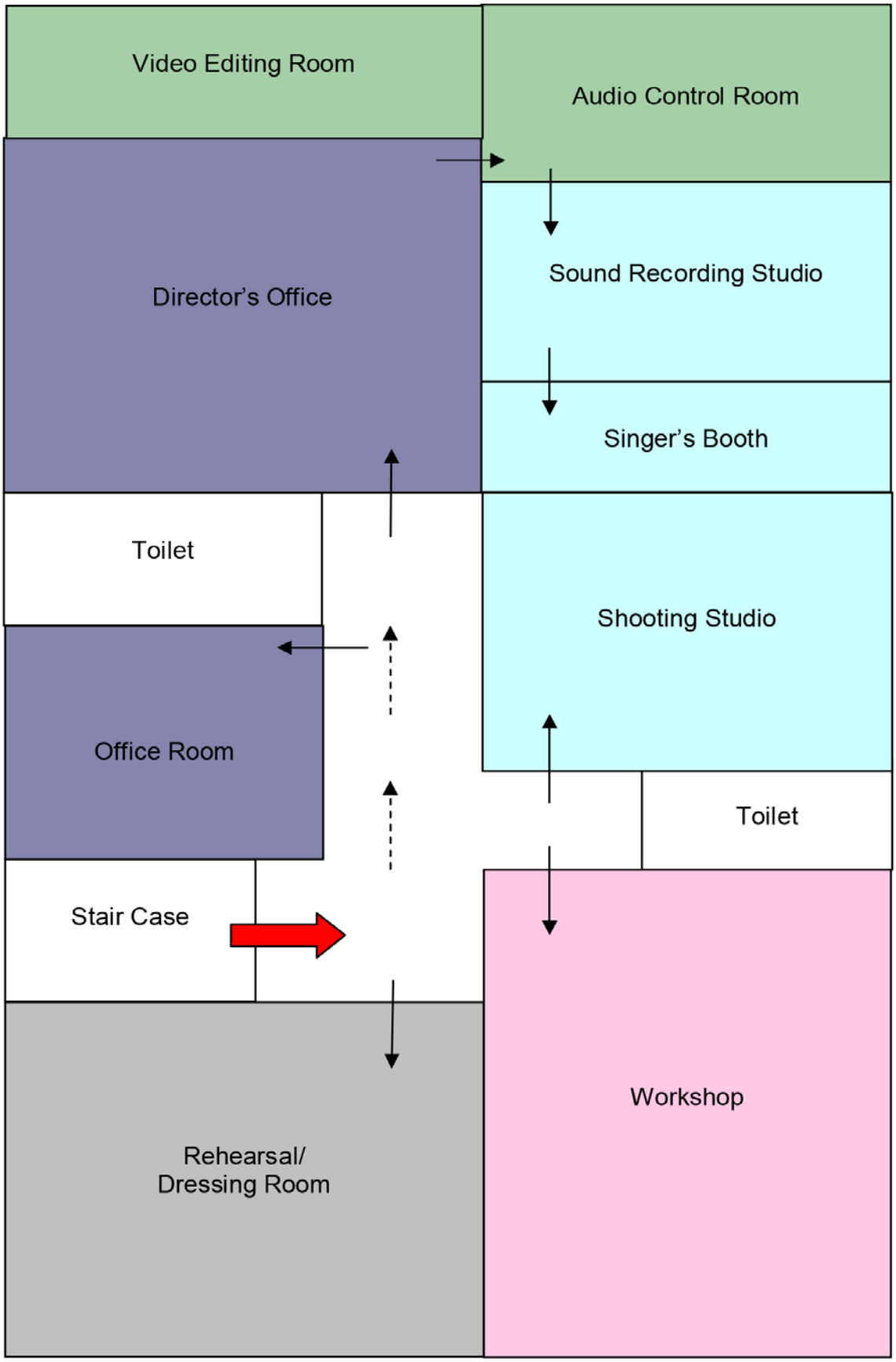


Fig 4.1.4 Schematic of First Floor

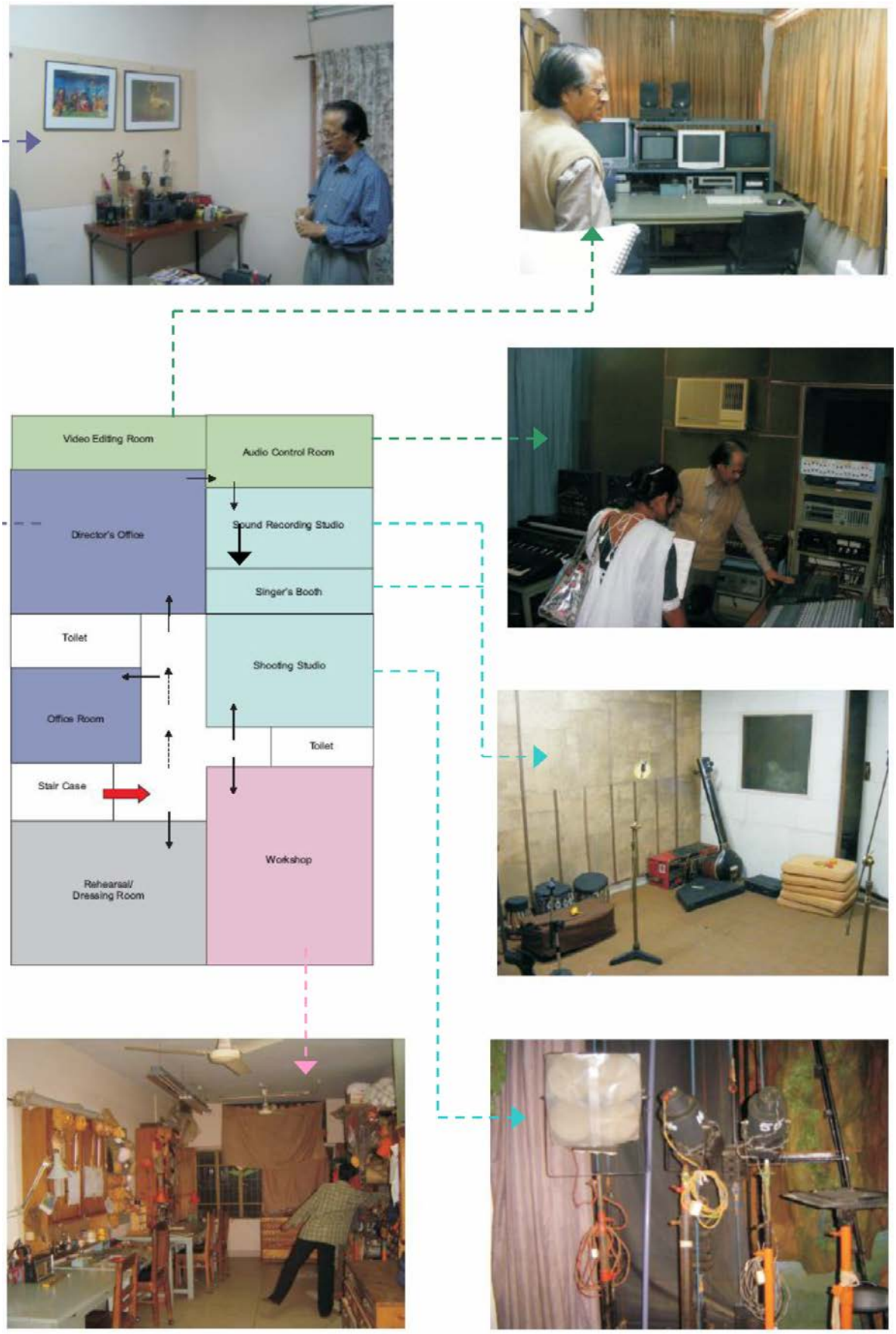


Fig 4.1.5 Pictures showing respective rooms of first floo

4.2 BANGLADESH SHISHU ACADEMY, DHAKA

Year of Establishment : 1976

Location : Opposite Karzon Hall, Shahabag Thana, Dhaka.

Financial Support : Bangladesh Government.

Architect : A.K.R Ahmed and S.K. Mandal.

Bangladesh Shishu Academy (The Bangladesh Children's Academy) is the only children's organization of Bangladesh. This institution was established by Ziaur Rahman's government at Dhaka in 1976. The academy has branch offices in all 64 districts of the country and in six selected upazilas of six divisions. There is a 13-member board of directors for the academy and it is headed by a chairman. The director and his assistants, including a deputy director, an assistant director and some other staff, are in charge of carrying out day to day functions. All offices of the academy conduct similar programmes initiated at the head office. The district level branch is headed by a district children's affairs officer and operates under the administration of the deputy commissioner [www.google.com].

The objectives of the project with which it was initiated were as follows:

- The mental, cultural and physical development of children
- The exploring of talents of children

Even though the site is not at all rectangular, the buildings are all set such that if the actual plan is not seen, it will seem like as if it is a rectangular site. The complex is designed such that the main functions are isolated in three separate building blocks, set against a garden and a huge play area. The main functions of the academy can be categorized as the following:

- Administrative Facilities
- Children's Library
- Auditorium
- Children's Museum
- Training Facilities
- Class Rooms

The academy runs a children's art gallery, a children's library and different educational forums like the Shahid Matiur Stage and the programme on the history of Bangladesh, and many more.

Activities of the Academy

- The national children's award competition
- Seasonal competitions among the children
- Children's fair
- Annual cake festival
- Children's art competition
- Study tours for children
- Training on performing arts and child healthcare
- Publication of books on children
- Primary education for children

A major road passes through the southern part of the site directly opposite to Karzon Hall complex, a significant colonial structure. To the north-west corner, is situated the three leaders mausoleum structure. The academy can easily be located as the well-known Doyel Chottor is very close to the site. The entry is from the south initiating a north-south leading to the space between the two building blocks of the auditorium and the museum. None of the three buildings are three-storied having the administrative block at the west side of the site but it is north-south oriented, to the east is the auditorium block and on the north corner, behind theadministrative block is the museum class room section.

Architectural Findings

- Rhythm and unity
- Variation, colour, texture, light and shade
- Playful and dynamic quality
- Tradition
- Guideline axis
- Adventure

Project Findings

- One of the good things of the project is that a large portion of the site is dedicated for the garden and the children playground, whereas if the whole area would have been used up then a much large complex could have been achieved, but the two positive factors were taken into account.
- Even though the site is right by the side of a very busy street, it is not of any problem because of the deliberate set back provided to the academy. By doing this it was assured that there would be no problem faced for the busy street both

in cases of prevention from accidents and separation from the noise generated by the vehicles. This also helps avoid traffic that could have been created due to the children coming to the academy.

- The café block has most of the class rooms on the first and second floor of the building and few open class rooms are also there in the museum block.
- The museum is mostly artificially lit as along thin slits of windows are seen.
- The library has windows all around but because of the depth of the entire room, it also has to be lit artificially.

Limitation

The present facility requires an extensive expansion especially in order to create adequate provision for the ongoing academic activities. Therefore, more class rooms and studios should be built.

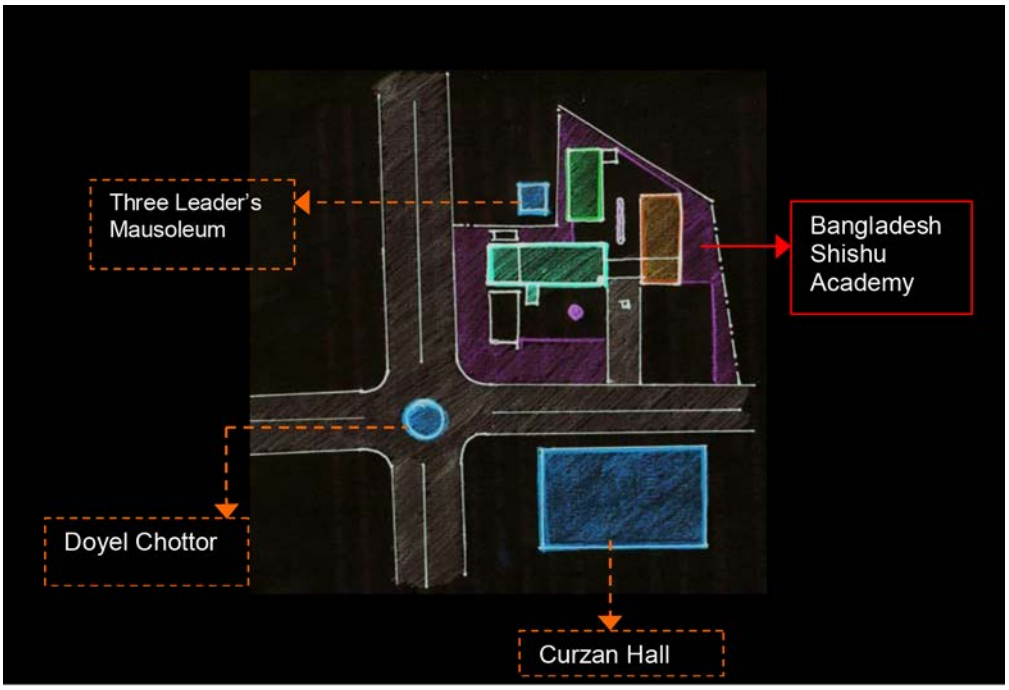
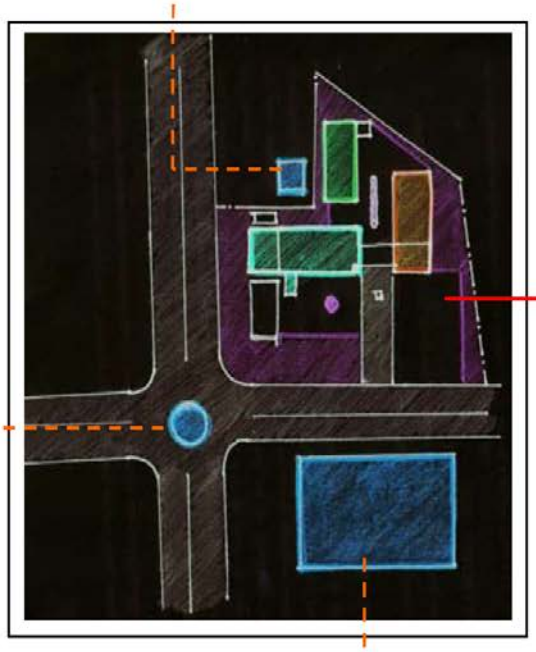


Fig 4.2.1 Three landmarks around the site

Three Leader's Mausoleum

Bangladesh Shishu Academy



Doyal Chottor

Curzon Hall

Fig 4.2.2 Pictures showing the landmarks and the academy

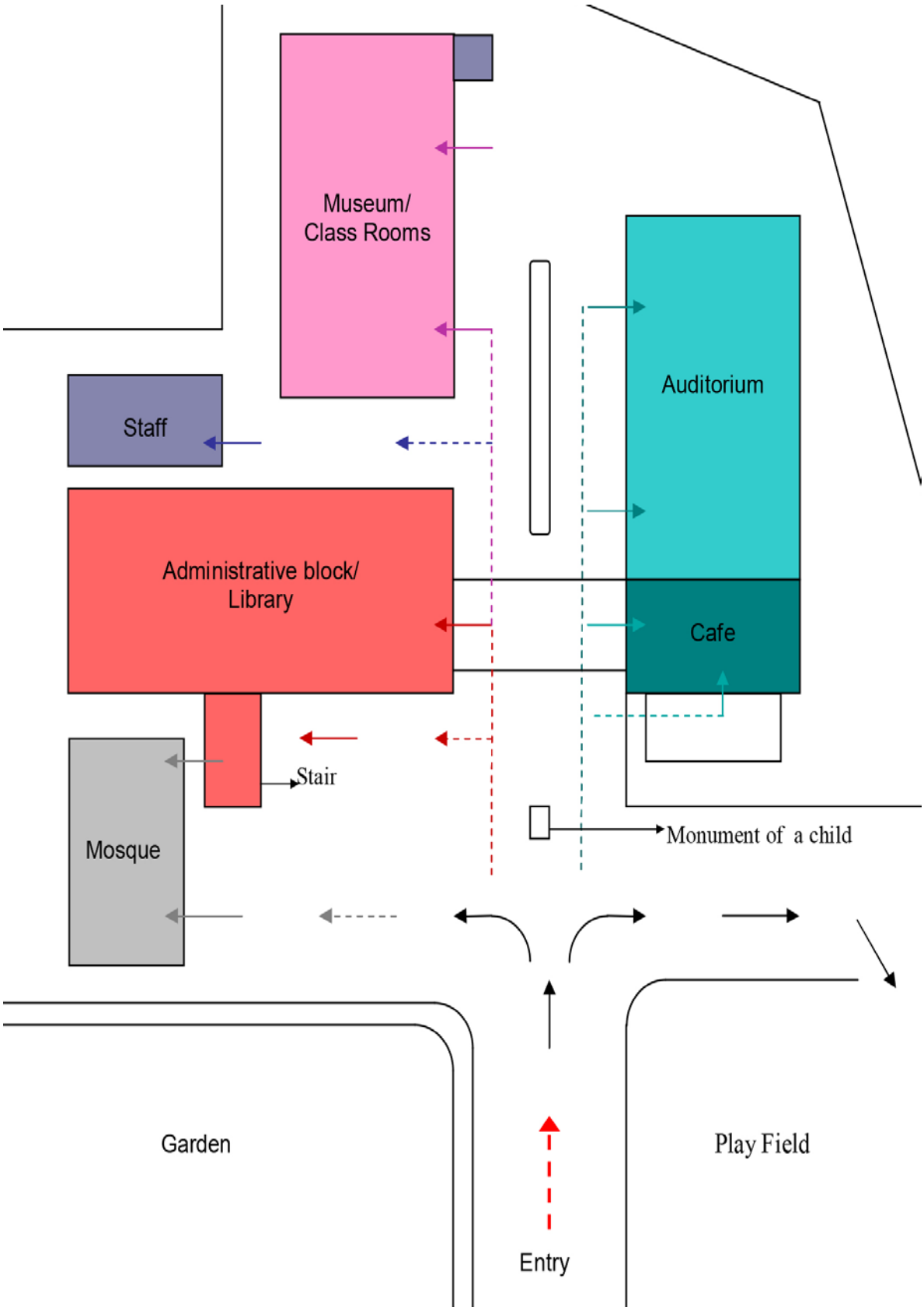


Fig 4.2.3 Flow chart showing the individual blocks.

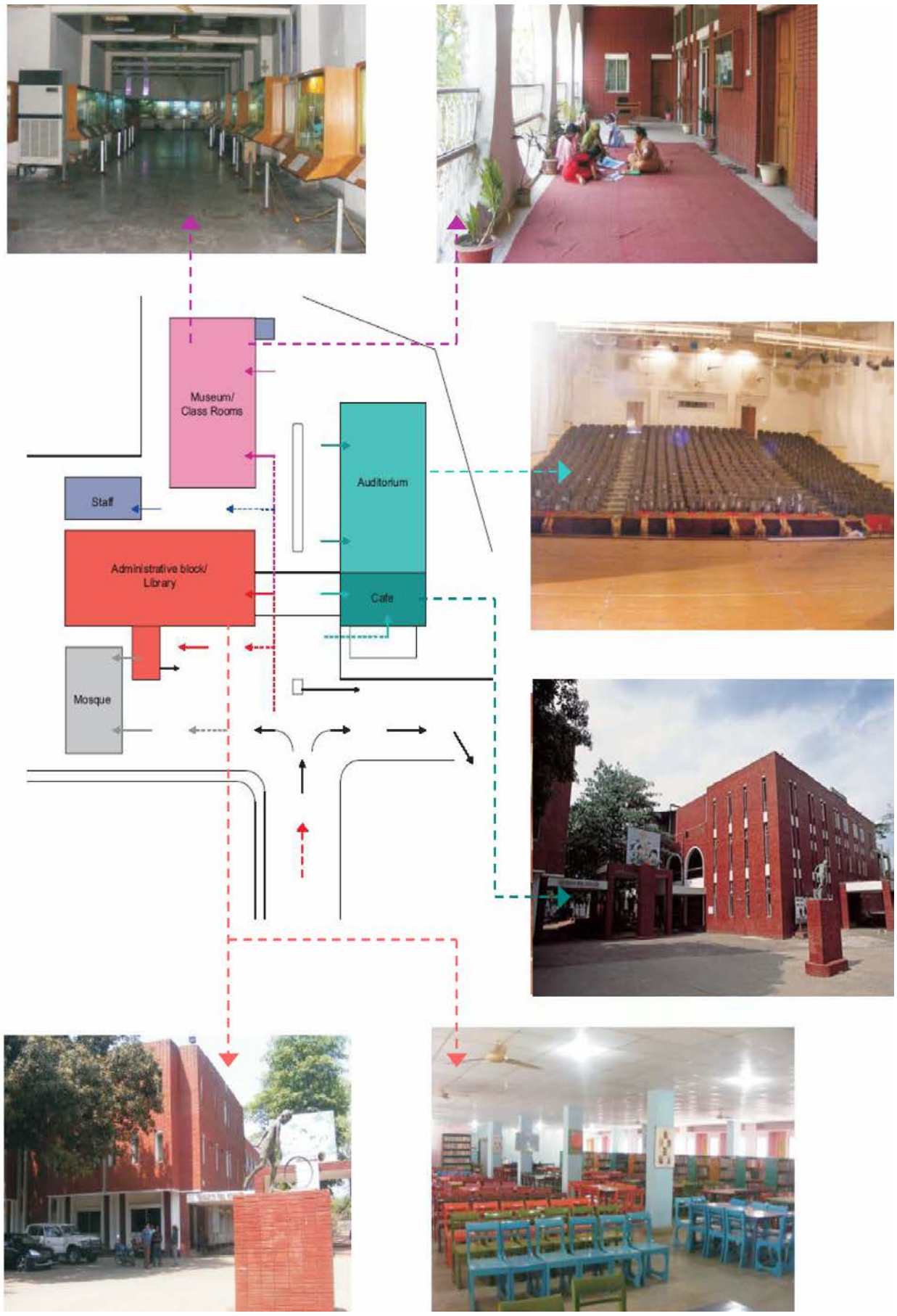


Fig 4.2.3 Pictures of different functions within the building blocks

Fig 4.2.4 Admin block along with mosque and parking

Fig 4.2.5 Admin block along with the monument

Fig 4.2.6 Auditorium Block along with the sitting

Fig 4.2.7 Landscaping, also used for sitting purpose.

Fig 4.2.8 Museum Block and the path way towards the staff quarter

Fig 4.2.9 The connection between admin block and auditorium behind is the café.

4.3 BANGLADESH TELEVISION BHABAN, DHAKA

Year of Establishment : 1964.

Location : Television Bhaban, 450 W Rampura, Dhaka.

Financial Support : Bangladesh Government.

Architect : Mahbub Ul Haque (under the supervision of Peter Selsing, Sweden).

Engineer : K.G. Rabbani.

The first television signal broadcast in Bangladesh was in 1964 by the state-owned television network BTV. BTV had monopoly on the market since then till 1990, when other television station started. It started broadcasting Black-and-White transmission on 25 December 1964 [www.wikipedia.org]. Bangladesh Television had started with the name Pakistan Television but after the independence of Bangladesh it was renamed as it is. Broadcasts in full colour started from 1980. About 2 million televisions receive transmissions from the network's 17 relay stations. BTV has a national channel which is broadcast from Dhaka [www.wikipedia.org].

Apparent Style

- Building material, elevation treatment and spatial organization reflect the trend of modern architecture.
- Functional organization is based on contemporary TV Centres of Europe and Japan.

Circulation

External: There is no defined pedestrian and vehicular entry, but traffic circulation does not hamper each other due to its elaborate space. Most of the times the departure gate is kept closed.

Internal: Four types of people and their movement pattern is seen at the first floor.

- Outsiders are confined to the first block only.
- Artists' circulation path is very well defined and also very functional.
- Technical personnel make a loop of movement around the studios.
- And there is a service entry at the right side of the building which is mostly used by the staff members.

Project Findings

- The curved stair case is found to be the only vertical spine.
- The technical personnel and the artists share a portion of the circulation but CTA's internal circulation is mostly used by them.

- A straight forward and defined circulation is found for the administrative block.

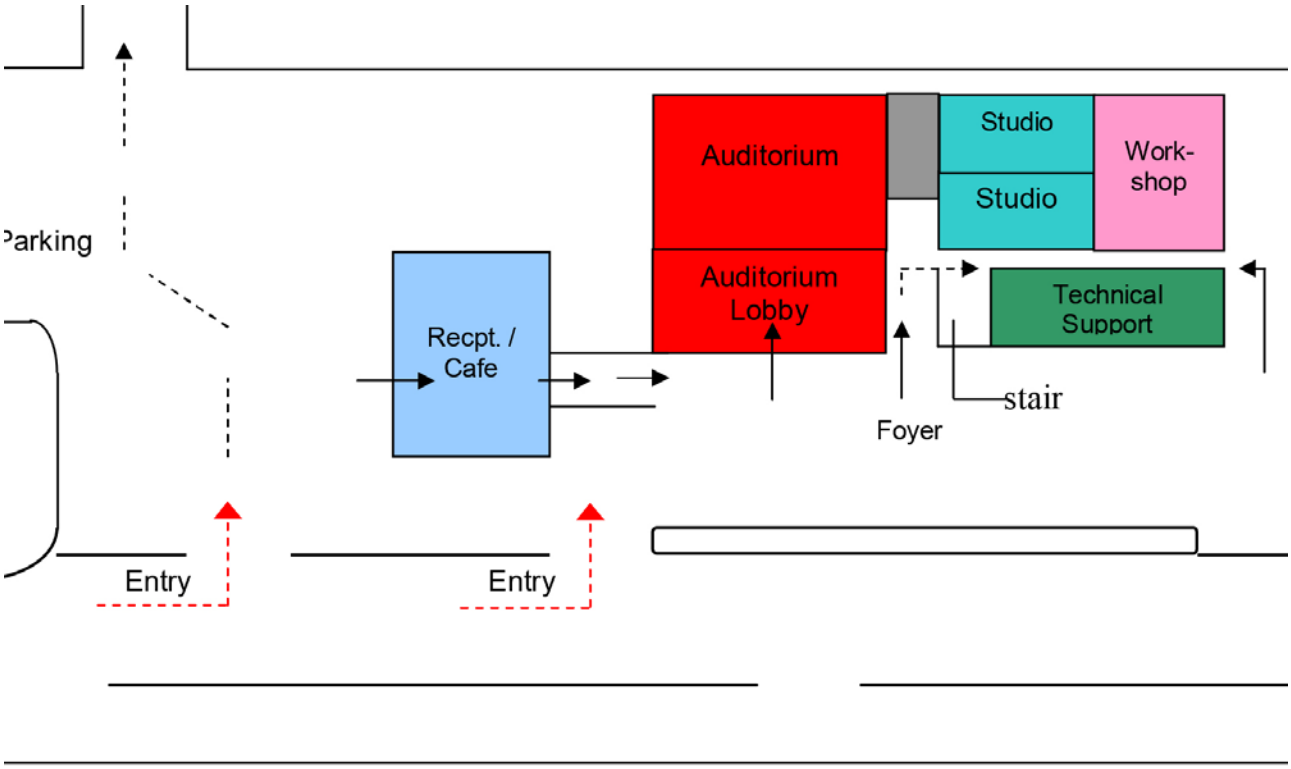


Fig 4.3.1 Schematic diagram of Bangladesh Television Station.

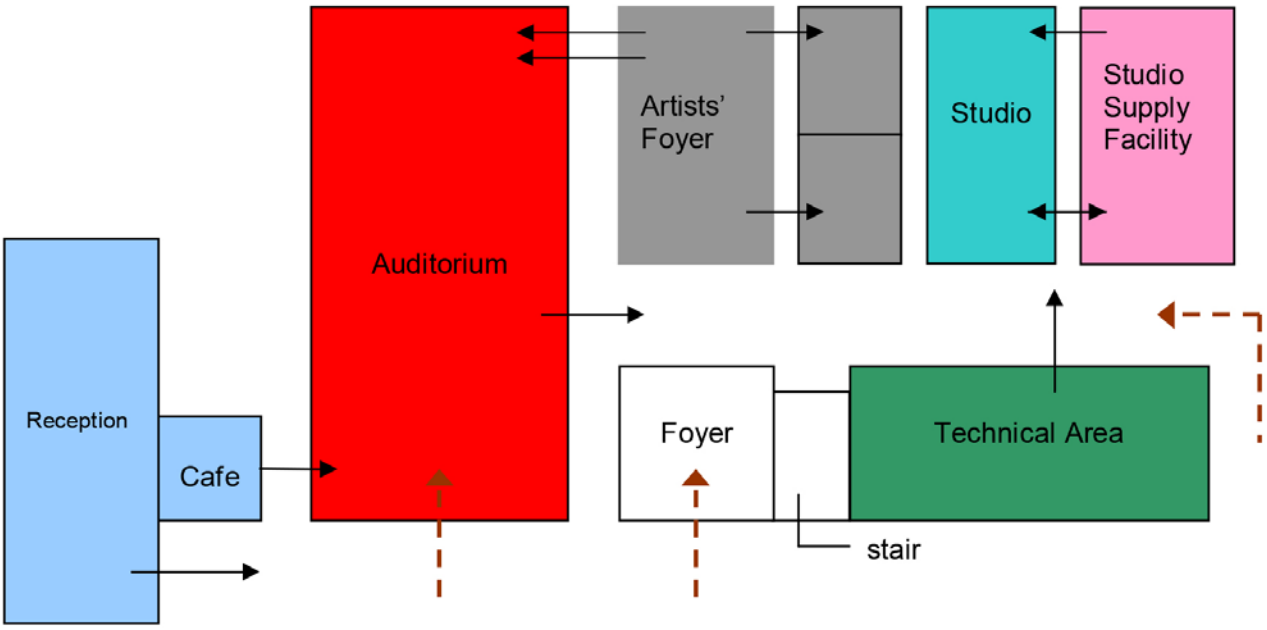


Fig 4.3.2 Flow Chart showing Ground Floor Plan

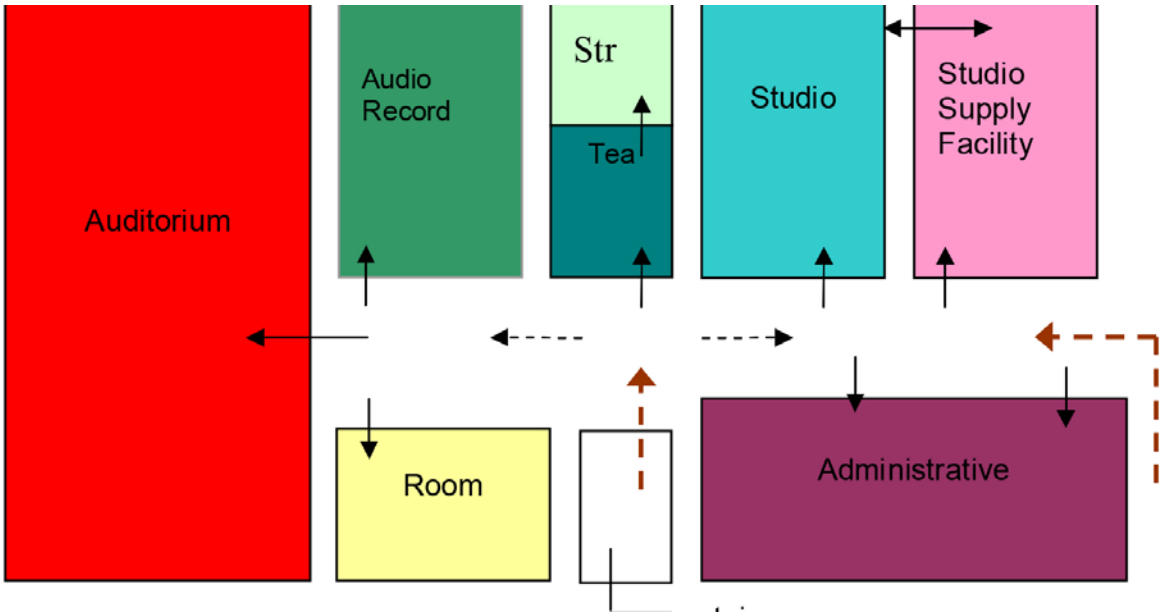


Fig 4.3.3 Flow Chart showing First Floor Plan

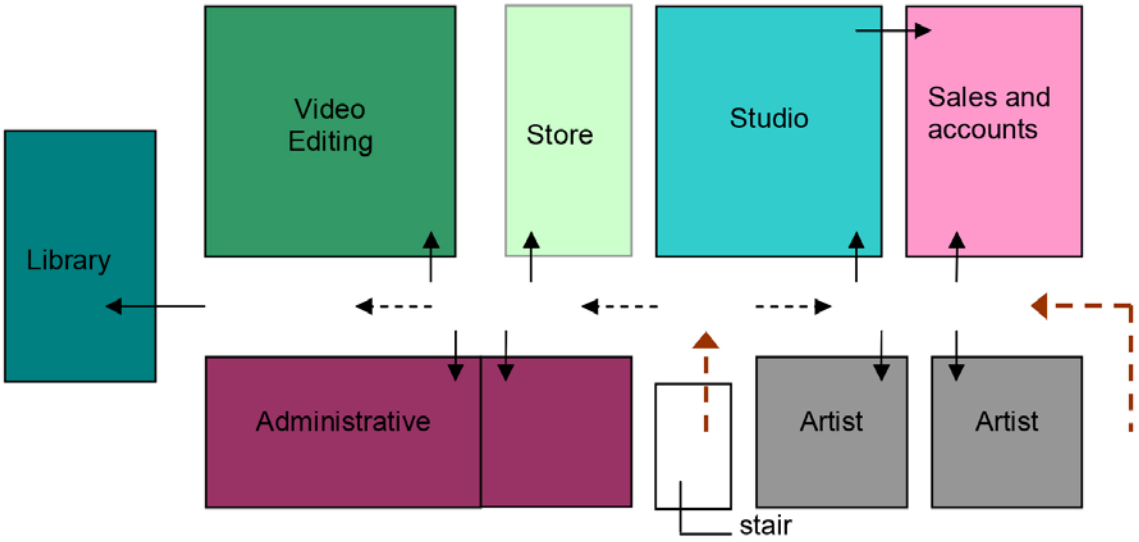


Fig 4.3.4 Flow Chart showing Second Floor Plan

4.4 CHILDREN'S MUSEUM, HIMEJI
Design : 1987 - 1988.

Construction : 1988 - 1989.

Location : Hyago, Himeli, Japan.

Architect : Tadao Ando.

Located on the shore of a pond in the beautiful green hills of the city of Himeji, this H is intended to help children grow creatively and emotionally. The composition consists of three elements- a main building, and intermediate plaza, a studio, arranged along garden paths linking them together. Functions of the main building houses on assembly room, a library, indoor theatre, outdoor theatre gallery multipurpose hail and restaurant The intermediate plaza is made up of 16 posts, each of them 9 meter tall arranged in a grid within a periphery wall create an outdoor observation and relaxation space. The project also contains a most inwardly located square studio block consisting of terraces and space for unlimited creative activities.

Considerations

- The project was conceived to be highly sensitive to its natural settings that would set people in a ritual to experience the beautiful landscape gardens through the linear paths.
- Provisions has been made for such activities which may stimulate from creative thought

- process that the place it to encourage, although they may not be specified at present.
- Most formal functions occur in the mum blocks thus people wishing to visit only these
- functions can do so and leave. Thus, a process of elimination takes place as only those who want to go on continue to proceed towards the gardens.
- The approach road takes visitor through a journey along the garden and then enter through the southern port of the site. Thus the total sequence of arriving in a car merges with the journey through the garden. The garden being located at a higher level than the rood is undisturbed in its view towards the lake.

Planning

The three elements are linked in tension and set within the site to utilize most of the surrounding natural beauty. A combination of walls and frame structure, the total design guides with walls, setting people in a ritual concept.

Findings

- A harmony between architecture and natural acting upon human sense can be witnessed here.
- The long routes can be taken the children through the gardens, intensify a sense of scale and direction while creating unlimited scopes for interaction with nature.

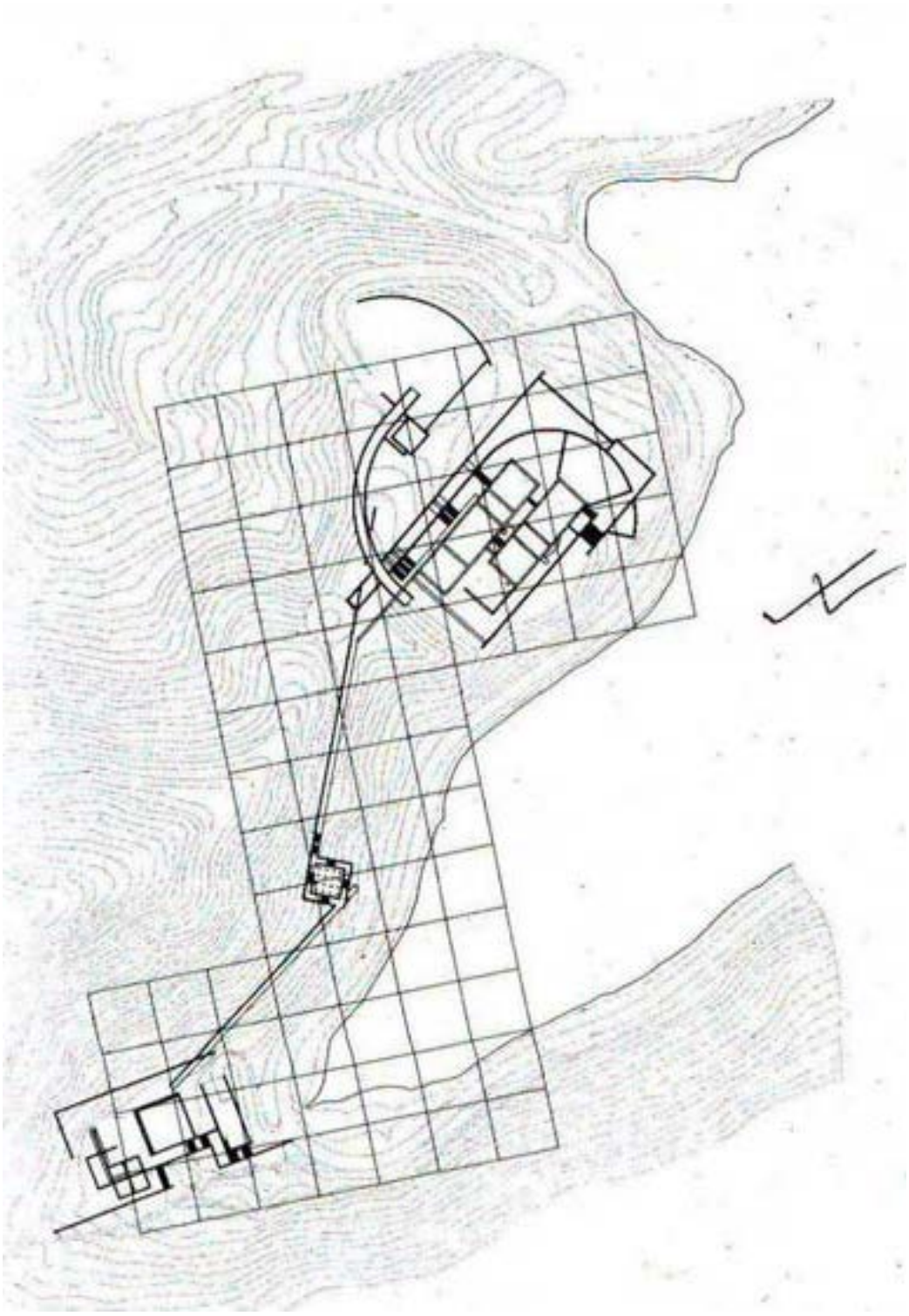


Fig 4.4.1 Site Plan [Philip Jodidio, 1997]

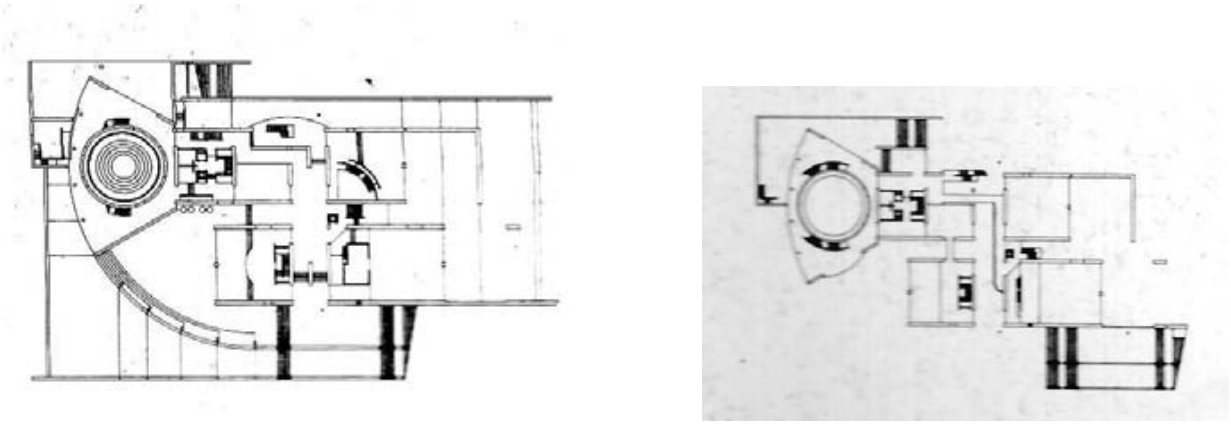


Fig 4.4.2 Ground Floor Plan (left) and First Floor Plan (right), [Philip Jodidio, 1997]

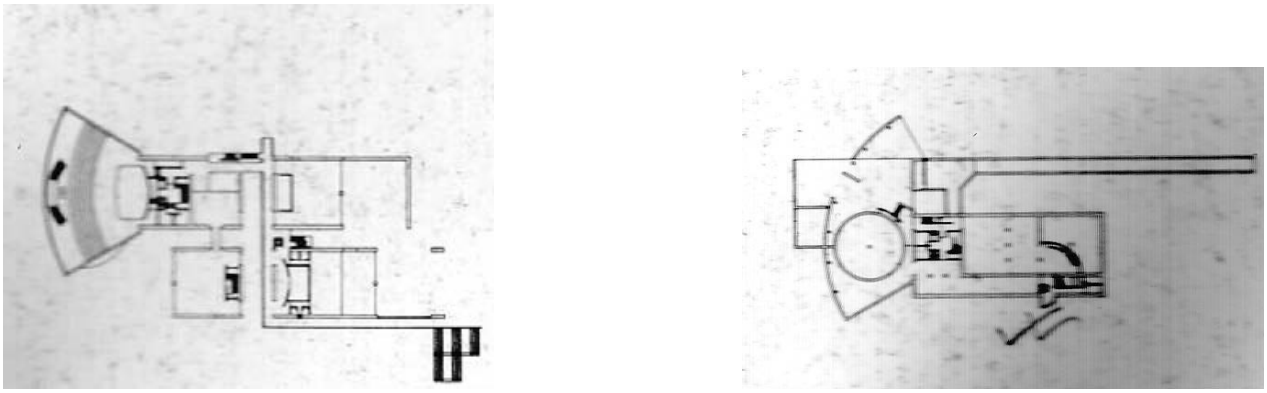


Fig 4.4.3 Second Floor Plan (left) and Third Floor Plan (right), [Philip Jodidio, 1997]

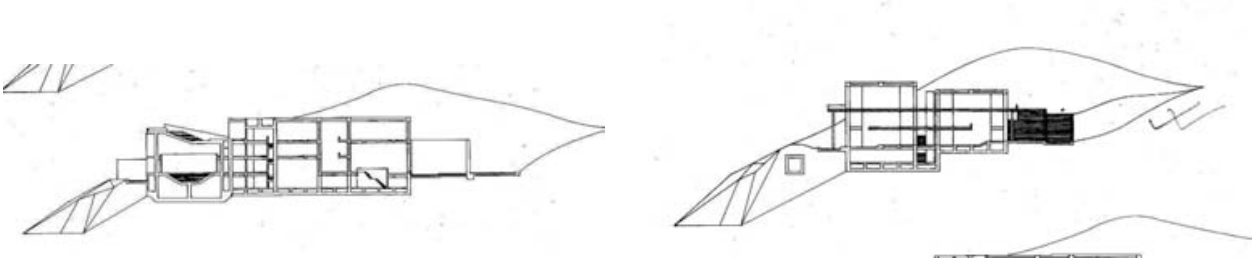


Fig 4.4.4 Section through the Museum, [Philip Jodidio, 1997]

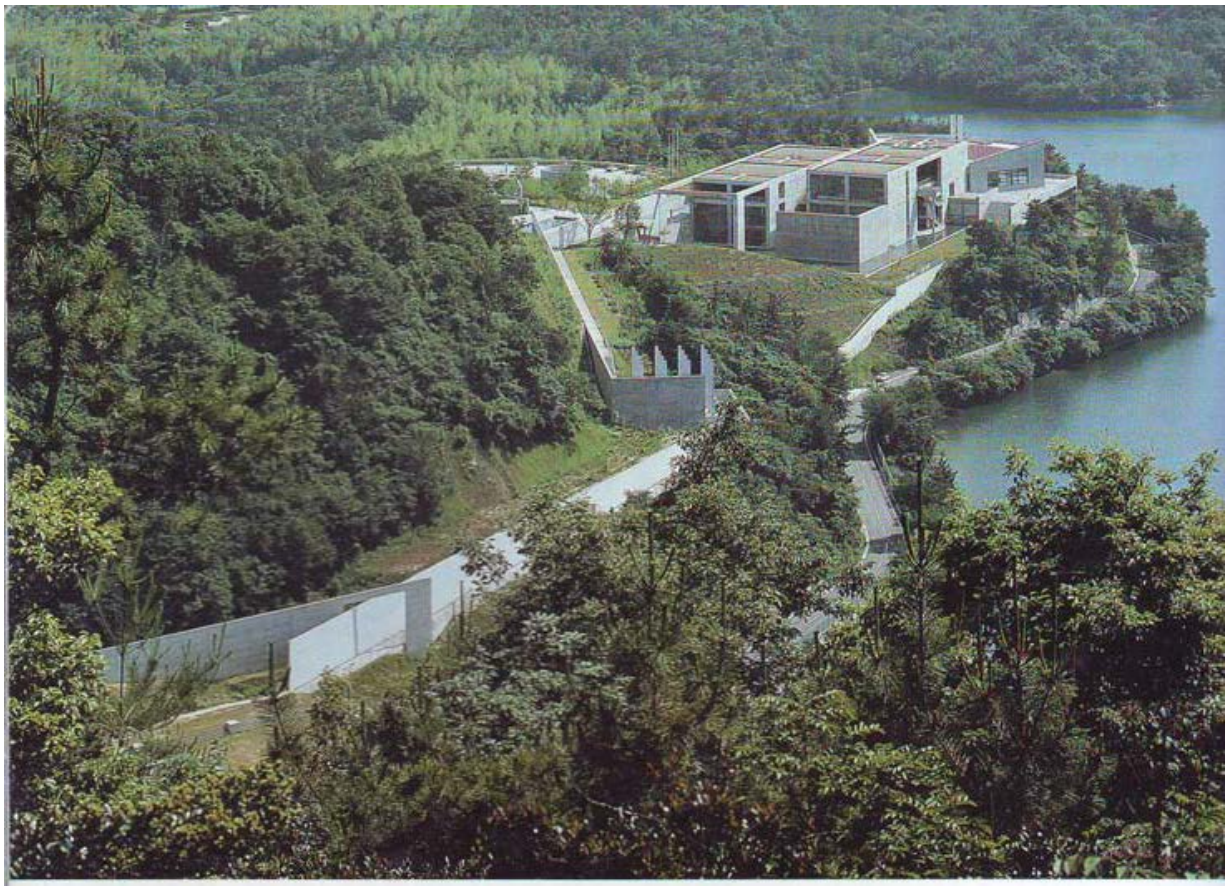


Fig 4.4.5 Total site view, [Philip Jodidio, 1997]

Fig 4.4.6 View of the project from different angles, [Philip Jodidio, 1997]

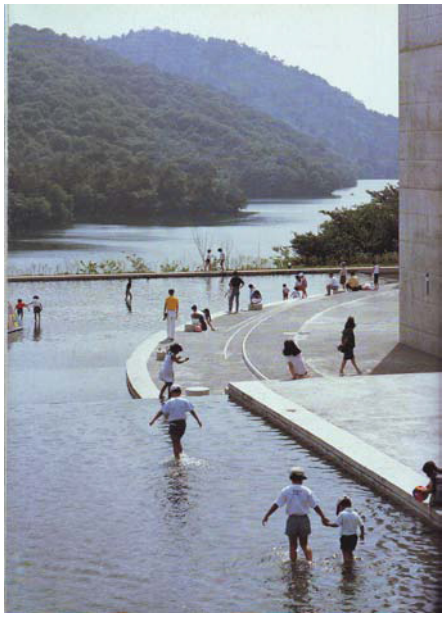


Fig 4.4.7 Other views of the building connecting to the water body, [Philip Jodidio, 1997].

Case Study Analysis

By analysing the case studies, the following were the findings. It will surely give a clear understanding for what is to be taken into account during the design process.

- The audio recording rooms have to be absolutely sound proof.
- The video recording rooms are to be air – conditioned.
- Auditorium for puppetry should be such that the children's view is not blocked for a parent sitting in front of him/her.
- The auditorium cannot have a balcony.
- Each technical room has different dimension which has to be provided accordingly in order to achieve a perfect functional support.
- Workshops have to have all sorts of support in order to produce puppet, puppet sets and other relevant things.
- Museums are preferably artificially lit and ventilated, so that the puppets in the display do not deteriorate with time.
- All class rooms for the children centre cannot be of same size as different classes have different requirement.

Chapter 5: Project program

This section encloses the project aim, objectives and the main functions of the project programme.

5.1 PROGRAM BRIEF:

Administration

- A central administration with information centre, administrative offices, accounts section etc.
- The administration will ensure the smooth operation of the facility and also will maintain the process and promotional responsibilities of the facility.

Theatres

- 200 to 250 person (maximum) theatre for large performances with full arrangements for live recording and if necessary broadcasting facilities.
- Two small performance booths (may be out door, may be mobile) for small performances, for small groups. (Groups from schools, other institutions, afternoon shows etc).
- This theatre is meant for large performances, and also to host visiting performances from
- other countries. This will contribute to the advancement in this art and also through exchange the art will evolve. Important shows will be recorded live and can also be televised.
- Since this will have full facilities of lighting, props and sound, this facility may also be rented out fur small plays and musical recitals. Especially it can contribute also to develop
- performance arts of children and support the integrated children's centre.

Workshops

- Prop preparation: a fully equipped workshop for prop preparation with proper loading and unloading f as sometimes certain elements can be contracted outside.

- Puppet design and making: a filly equipped workshop for designing and making of puppet and their movement techniques, with maintenance facilities.
- Costume design and making: a design and sewing section for developing costumes.
- These workshops will not only provide in-house facilities of designing and making of props and puppets but will also play an important role in training as these workshops will also serve as labs for the training programs.

Recording Studios

- Video recording studios with shooting booths of performances, computerized lighting facilities, and alpha channel coding facilities.
- Audio recording studios for dubbing, voice over, and music score recording.
- Editing studio with non-linear editing panels, multi format recording and publishing facilities.
- The recording studios will develop TV programs and will also record shows that can be the published in video format and televised.
- Different agencies can also use these studios to develop awareness programs, educational programs etc.

Production Studio

- Offices and working studios of the production teams.
- This is where the productions and stories are produced and houses the in-house teams and also will have working areas for visiting teams. Script writing, production design, and research all this will take place here.

Training Centre

- Training facility with class rooms, library, practice studios, and faculty offices.
- the training facility will develop the next generation of puppeteers and also contribute to developing this art further and helping it to evolve to become more relevant to our times.

Puppet Museum

- An extensive museum to display puppets and also to preserve and display the history of puppeteer in our country. It will have document display galleries as well as galleries for puppets. It will also have viewing rooms to show past shows and an archive to keep pictures and videos and records.

- The role of the museum will not only be to display the history of puppeteer but to also to display different puppets over time, from home and abroad. It will also have viewing rooms where visitors can see recorded shows from a library of videos. The museum will not only help to preserve and display but will serve as a centre where people can come and see events from the past.

Children's Centre

- The children's centre is a centre for children where they can come to see and to train in fields of art and performing arts.
- Activity rooms: multi-purpose rooms where children can learn drawing, painting, music, puppetry and drama. Instructor's offices: offices and other facilities for the instructors.
- Children have always been great fans of puppet show. Also puppets can be used to not only to tell stories but also as education tools for children. The integrated children centre with the theatres and the museum with its viewing rooms will contribute greatly in making puppeteer popular and also give the children a source of healthy entertainment.
- Many educational shows can also be held for children and group visits from schools can be arranged.

5.2 SCHEMATIC:

The functional relationships are shown by different flow charts in the following pages.

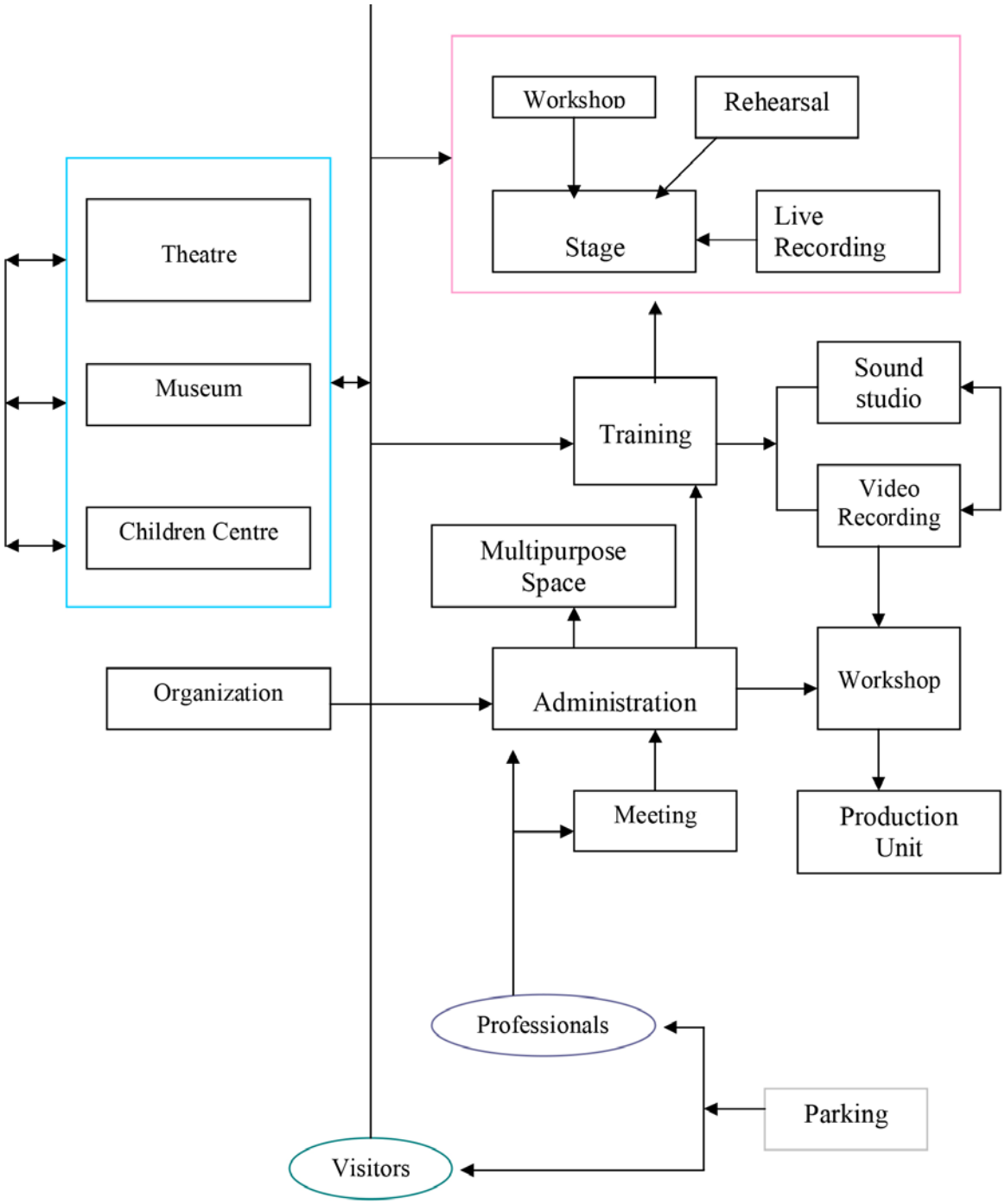


Fig 5.2.1 Functional Flow Chart

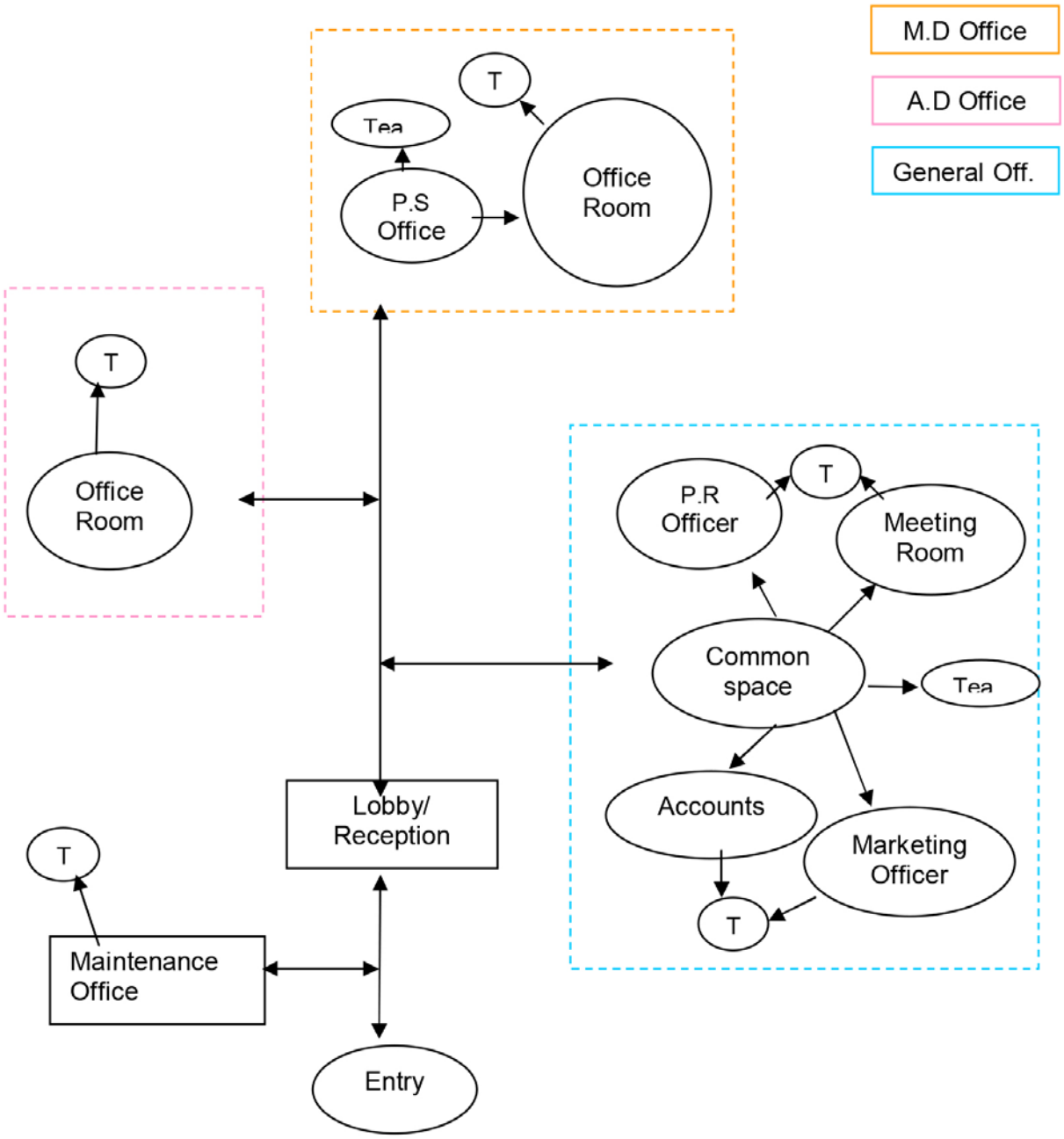


Fig 5.2.2 Administration Block

5.3 DETAIL PROGRAM:

Functions Area (sft)

Administration……..3620

Children Centre……..6450

Production Unit

Workshop…….....3800

Studios…… 22050

Exposition Unit

Puppet Theatre……..5650

Multipurpose Space……..9600

Museum……..5800

Library……..5220

Administration:

Functions	Details	User		Area(sft)	Special requirements
		Visitor	Staff		
Entry and visitors Waiting room	reception/ inquiry		1	200	* Seating for 15 people and have toilets both for the men & women. * Asst. marketing officer accounts asst. clerk and supporting professionals.
	lobby			150	
	lounge			550	
General office	common office space		4	200	* Accessible without crossing major circulation must have video projection facilities.
	Public relation officer		2	250	
	Marketing officer		1	150	
	Account officer		2	250	
	Meeting room		25	600	
	Tea room		1	40	
	Toilet			40	
M. Director's Office	Office room		1	250	
	Attached toilet		1	40	
	P.S. office		1	150	
	Tea room		1	40	
Asst	Office room		1	250	

Director's Office	Attached toilet			40	.
Maintenance	Maintenance officer		1	150	* Supervisors, mechanical, electrical plumbing technicians.
	Technician's room		6	120	
	Driver's room		4	150	
	Total			**3620**	

Production Unit:

Functions	**Details**	**User**		**Area(sft)**	**Special requirements**
		Visitor	**Staff**		
Entry and Semi waiting	reception/ inquiry lobby/ lounge		1	500	*Seating for 15 people and have toilets both for the men & women.
Admin office	Manger's room		1	150	
	Project director's room		1	150	
	Attached toilet			40	
	Asst. director's room		1	150	
	Music director's room		1	150	
	Attached toilet			40	
	Assistant directors room		1	150	
	Musician's room		4	250	
	Total			**1580**	

Workshop:

Functions	**Details**	**User**		**Area(sft)**	**Special requirements**
		Visitor	**Staff**		
Art workshop	Sketch workshop		5	250	
	Model workshop		6	1000	* Have 2 parts-(1) clay moulding and (2) dry works.
	Dress making workshop		3	400	
	Storage			100	

Mech. workshop	Characters assembling		5	550	Assembling equipment & machine is needed.
	Storage			100	
Other facilities	Makeup		5	500	* Make-up room is liner rectangular in plan.
	Rehearsal room			800	* It has 20' height & has all facilities like shooting floor.
	Storage			100	
	Total			**3800**	

Studios:

Functions	**Details**	**User**		**Area(sft)**	**Special requirements**
		Visitor	**Staff**		
Art direction studio	Set preparation			5500	*High noise zone.
	Mech. equipment storage			1500	*Controlled environment for the mech. equipment's live camera.
	Stage and panel storage			5500	
Acting studio	Shooting floor			5500	* 26' height & have controlled environment
	Makeup room		2	250	* Make-up room is liner rectangular in plan.
	Artist rest room		5	250	* Attach toilet is need with this room.
	Control room		2	500	
	Tech. Office's room		3	200	* Floor manager, production asst. electrical controller.
	Total			**18700**	

Recording and engineering	Recording (video)		2	250	*Controller environment
	Recording (audio)		5	500	
	Tech. officer's room		3	250	* Work assistant & electrical controller.
	Total			**1000**	

Editing	3 editing panel		12	1050	* 4 staff for each panel and room *A/C
	Exposition room		4	800	*controlled environment
	Total			**2350**	

Library:

Functions	**Details**	**User**		**Area(sft)**	**Special requirements**
		Visitor	**Staff**		
Entry and visitor's waiting	Foyer			150	
	Check room / Lobby lounge		1	100 150	*Seating for 50 people with toilets for men & women & children and a snack bar.
Administration	Librarian		1	150	
Book section	Changing counter	50	2	200	* Make-up room is liner rectangular in plan. *Issue and return *Catalogue, drawers, disk for reference. *Toilet for ladies, gents and children
	Reference		2	500	
	Reading section		2	700	
	Stack (5000 book)			1000	
	Store			250	
	Counter		1	100	
Cyber library	Browsing	20		1000	
	Control room			250	
	Toilet			50	
	Total			**5250**	

Puppet Theatre: for 350 people

Functions	**Details**	**User**		**Area(sft)**	**Special requirements**
		Visitor	**Staff**		
Entry and visitor's waiting	Foyer			300	*Non-controlled area. Out-let for the handicapped. *Seating for 50 people with toilets (1/g/c) and have snack bar.
	Ticket officer		2	100	
	Lobby/ lounge			500	
Administration	Manager's room		1	150	*Enclosed for manager, storage.
	Electrical support		1	50	
Artist's area	Foyer			200	

	Lounge		15	500	*Toilets both for men and women
	Makeup room		2	250	* For emergency
	Multipurpose			500	*For the performer puppets with storage
Monitoring	Spotlight booth		1	200	* Controlled environment and have acoustic treatment, extra sound amplification.
	Light and sound			400	
Performance	Stage		3	750	* Size of the stage is 25'x20' (small) and 35'x30' or 35'x35' (large)
	Audience area			1800	
	Total			**5650**	

Multipurpose space:

Functions	**Details**	**User**		**Area(sft)**	**Special requirements**
		Visitor	**Staff**		
Entry and visitor's waiting	Foyer			150	* Toilets for men & women & children.
	Checkroom		1	100	
	Lobby			500	
Administration	Manager's room		1	150	
All purpose room				1000	
Stage	Stage area			500	
	Multipurpose room			500	
Storage				1200	
Training centre	Classroom			750	
	Teacher's room			250	
Museum				6000	
	Total			**11100**	

Children centre:

Functions	**Details**	**User**		**Area(sft)**	**Special requirements**
		Visitor	**Staff**		
Administratio	Lobby		2	250	* Toilets for men &

n	Common office		2	100	women & children.
Classroom	Painting	20		1200	* non controlled area
	Music	20		1200	
	Puppet studio	20		1200	
	Instrumental	20		1200	
	Acting and reciting	20		1200	
	Total			**6350**	

Restaurant:

Functions	**Details**	**User**		**Area(sft)**	**Special requirements**
		Visitor	**Staff**		
Restaurant	Lobby		2	250	* Toilets for men & women & children.
	Dining	250	10	3500	
	Kitchen		6	1000	
	Storage			300	
	Total			**5050**	

Building services:

Functions	**Details**	**User**		**Area(sft)**	**Special requirements**
		Visitor	**Staff**		
Building services	A.C plant room		2	1500	
	Cooling tower			200	
	Electrical substation		2	1000	
	Water supply storage		6	1200	
	Garbage disposal			200	
	Prayer hall		20	250	
	Total			**4350**	

Parking:

	Details	**User**		**Area(sft)**	**Special requirements**
		Visitor	**Staff**		
	Staff's car		10	2420	

	Visitor's car		40	9680	
	Visitor's bus		3	2900	
	Total			**15000**	

Grand total (without circulation and services) =79,450 (without children park)

Grand total (with circulation and services) =1,00,000 (without children park)

Chapter 6: Design development

6.1 Concept development:

6.1.1 Concept:

The basic idea was to create a form that gives a feeling of the puppet. Form that communicates with the people about puppetry. I started studying the features of the puppet that makes it recognizable to the audiences. The characteristics that makes the puppets recognizable to people of all ages is the mechanism on how it works. The most popular form of puppetry is marionette. The marionette is a puppet on strings, suspended from a control held by the puppeteer. Marionette presentations generally need to be raised, either by setting up on a platform, stage or rostra blocks, or by the use of a built-in feature of the puppet staging. Totally open-stage per forming, in which the puppeteer appears fully visible on stage with the marionettes, is used most frequently for cabaret and variety acts. It provides greater scope for movement and action than the more traditional forms of presentation. I tried to imagine the phenomena with sketches .

Fig. 6.1.1.1 A puppet operating by hands and strings

I then try to sketch out my form that represents the puppet. The form suspended from parasol with props and structural skeleton. I try to give a feeling that a puppetry show is going on the whole time.

Fig. 6.1.1.2 Initial sketches of the form

6.1.2 Initial ideas and design development:

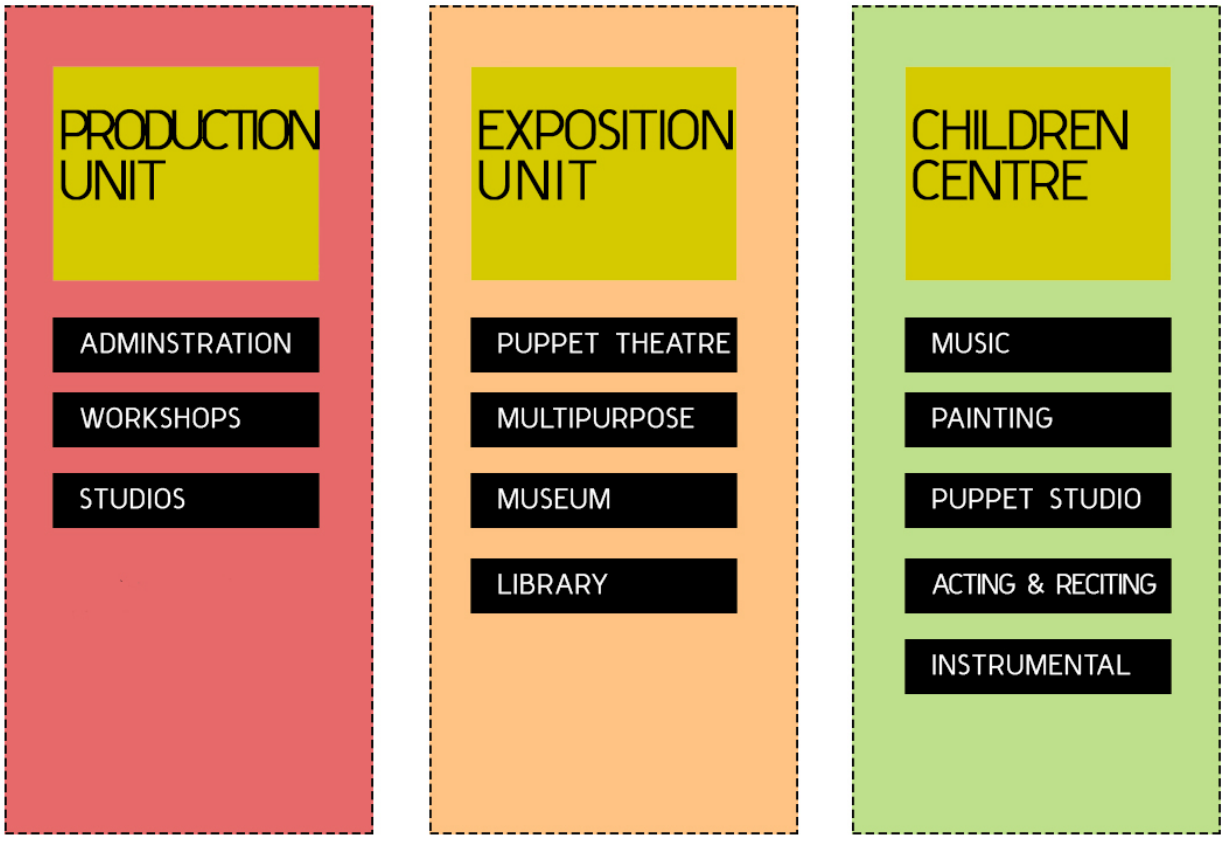


Fig. 6.1.2.1 Division of the programmes

I divided the programmes into three major division. This three categories would represent three individual masses. The journey to these mass would give a feeling of exploration which also a key aspect of puppetry, exploration of human psyche.

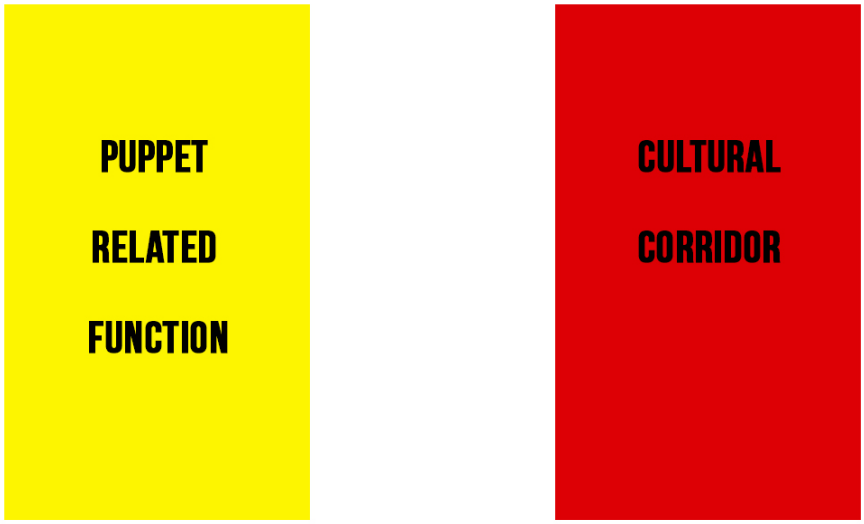


Fig. 6.1.2.2 Adding a cultural corridor

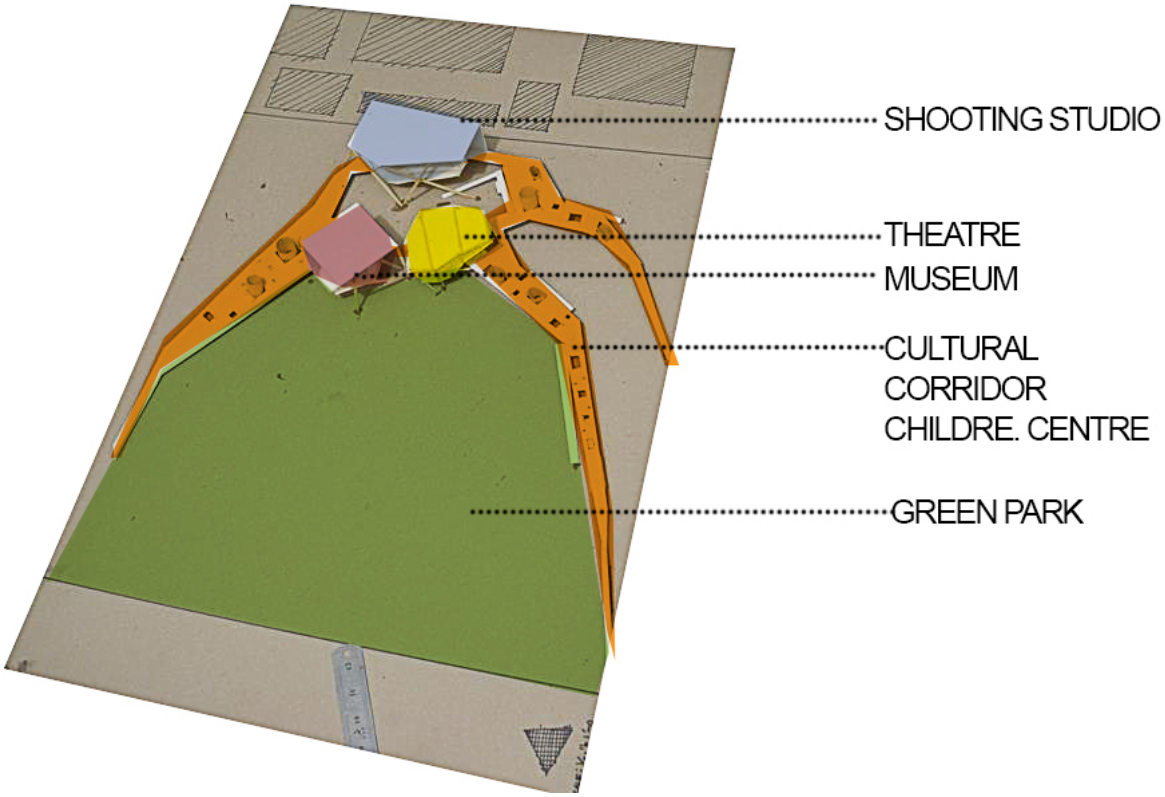
A proper public space was needed for the site. The site is in one most important places of Dhaka city. There are a lot of important institution and schools and colleges but there are no public space to hold these important structures together. So designing a public place was a crucial part of my design. I name it a ' Cultural corridor' where all the cultural activities, street puppet shows, drama show etc will take place. A happening place for the children where they would take part in a journey of learning our culture through various activities.

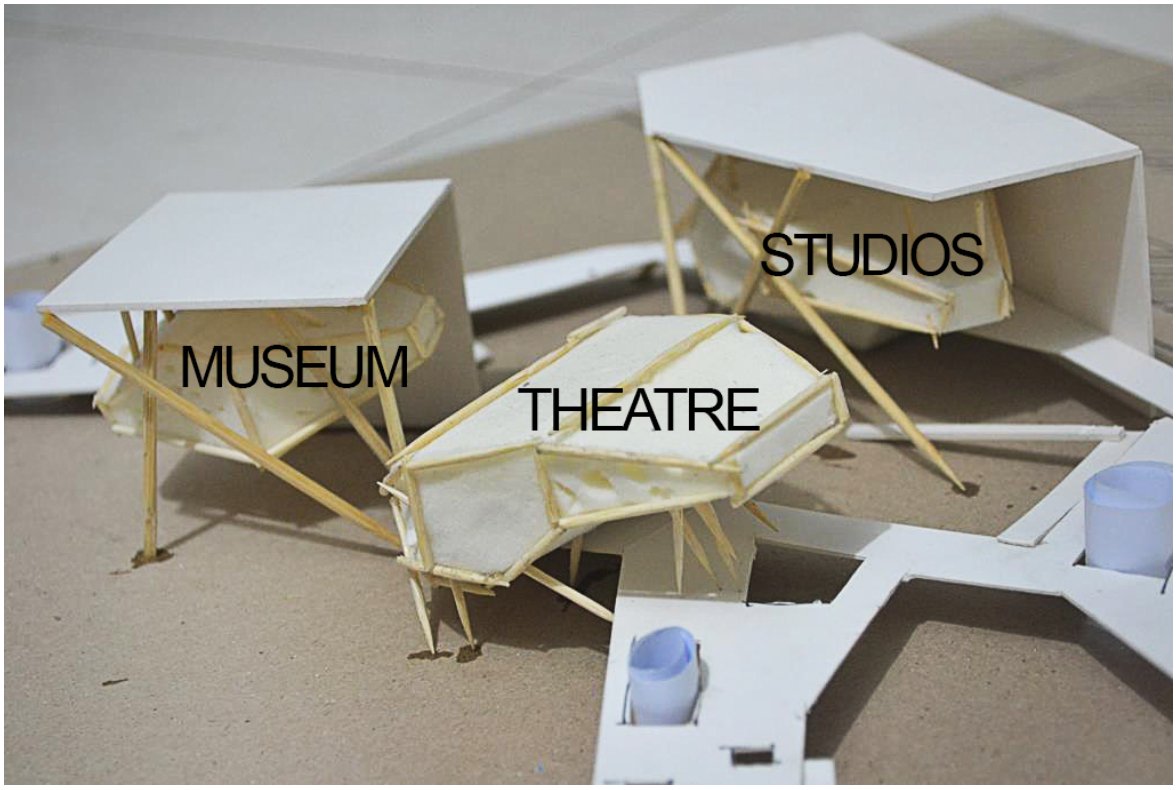
Fig. 6.1.2.3 Final sketch which is the inspiration and a brain storm for the project

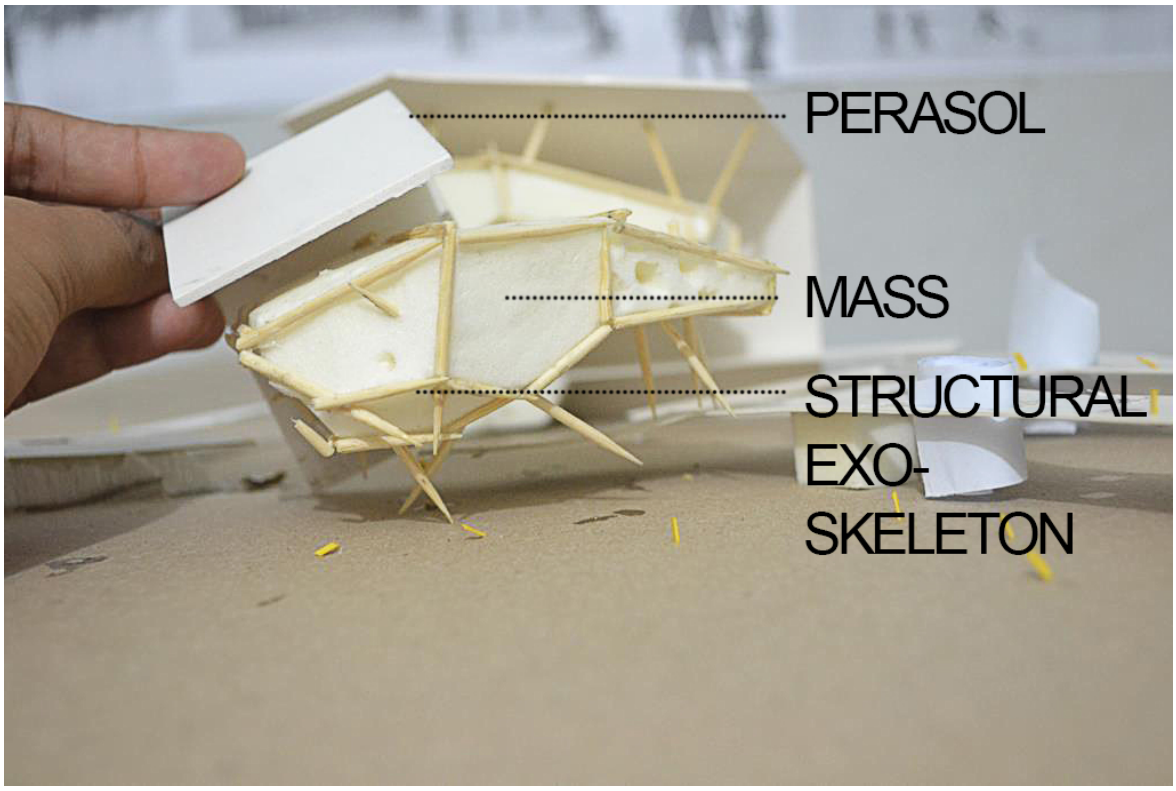
I started visualizing the spaces through models, sketches and montages.

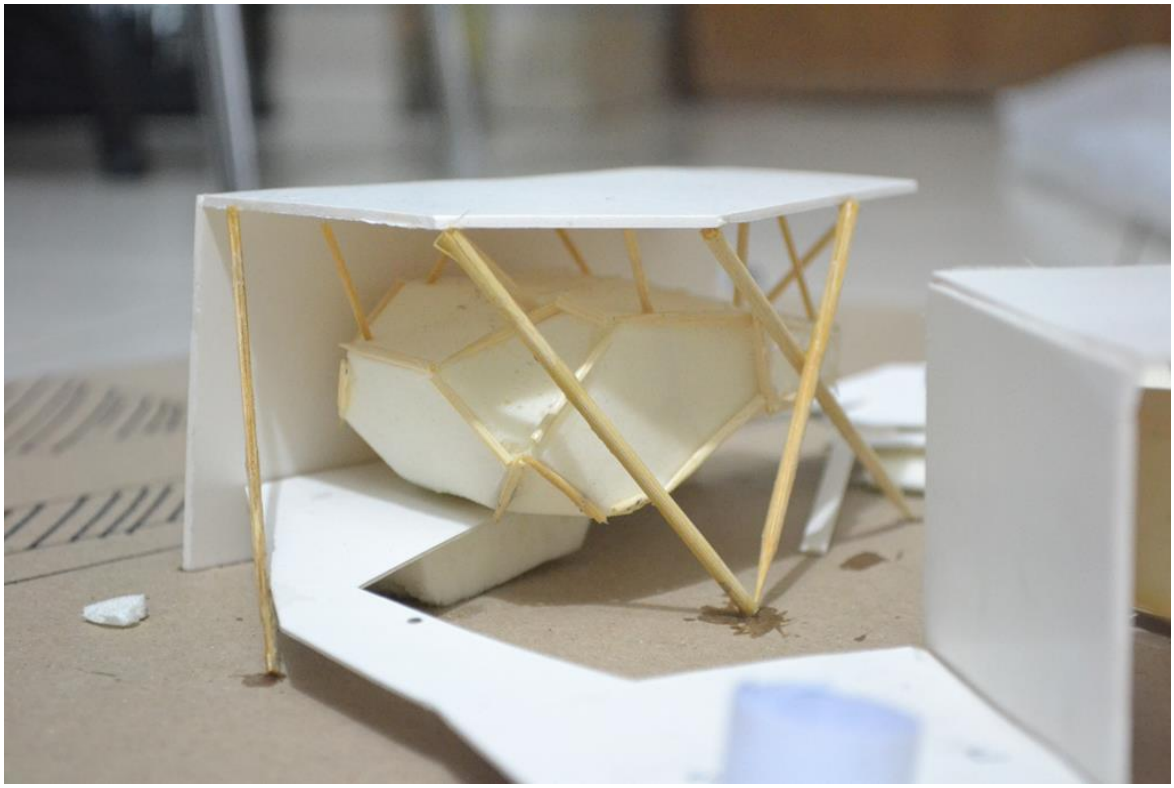
Fig. 6.1.2.3 Visualizing the spaces

A model was made implementing all ideas that had been developed through.






PERASOL
MASS
STRUCTURAL EXO-SKELETON



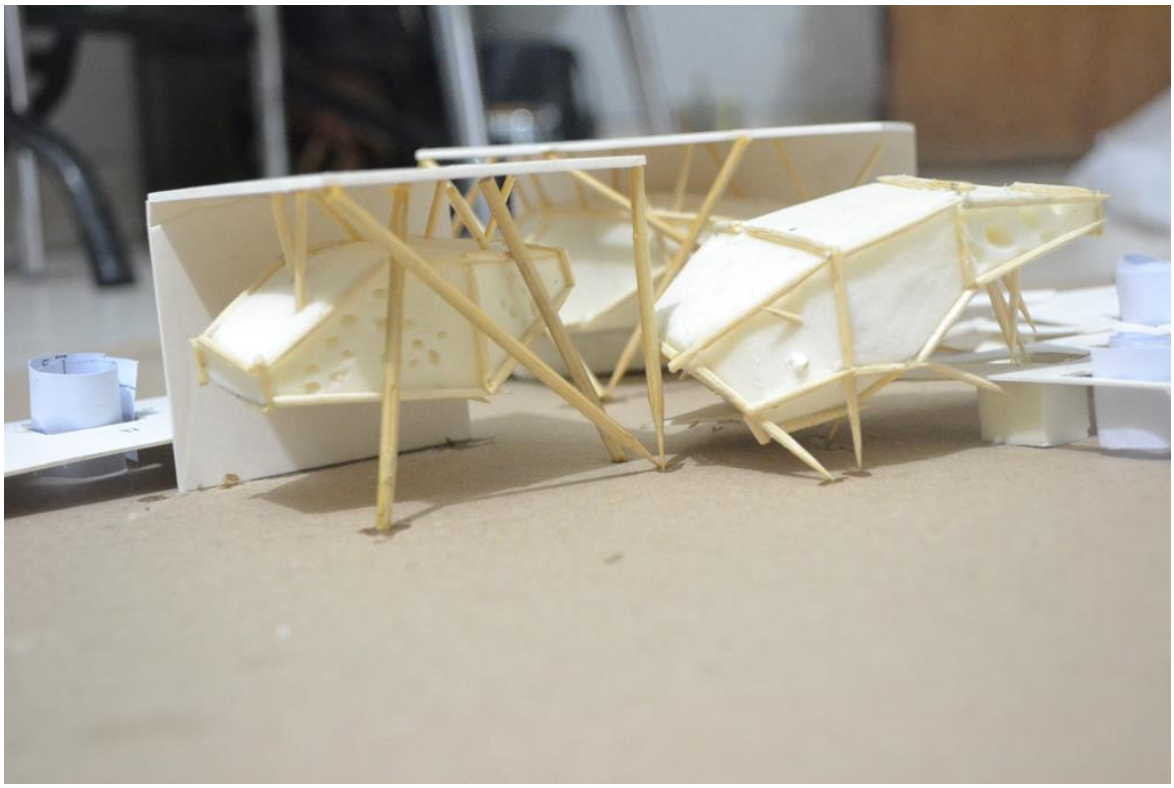


Fig. 6.1.2.4 Visualizing Through model

At this stage the orientation and the placement of the masses were not right. Masses were arranged in the next stages. The activity zone was moved in the centre under the masses and an amphitheatre was placed around which the masses are arranged. Through this the masses feel connected which was missing on the previous stage. The amphi would remind the old village entertainment where a cultural show was arranged under a big banyan tree. A walk down through the memory lane.

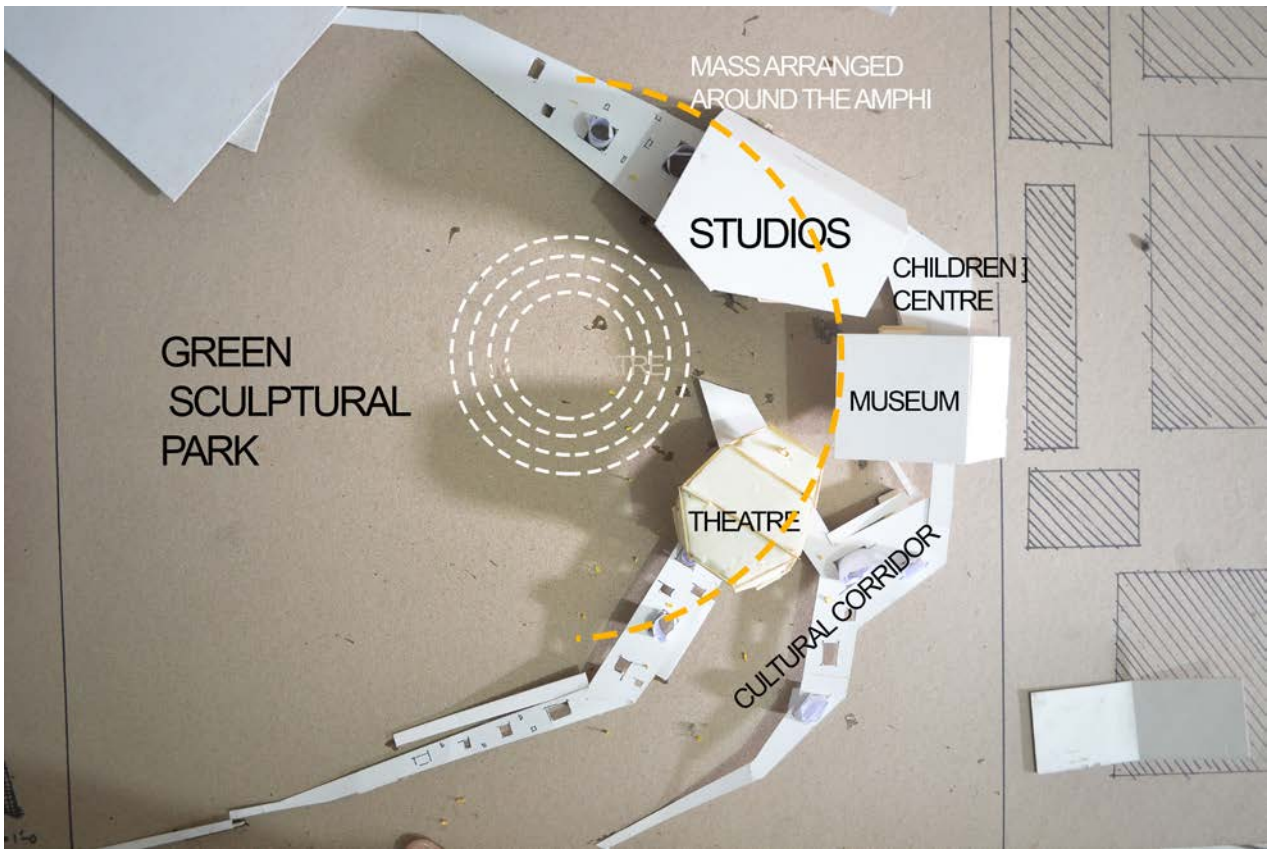


Fig. 6.1.2.5 Masses are arranged around the amphi

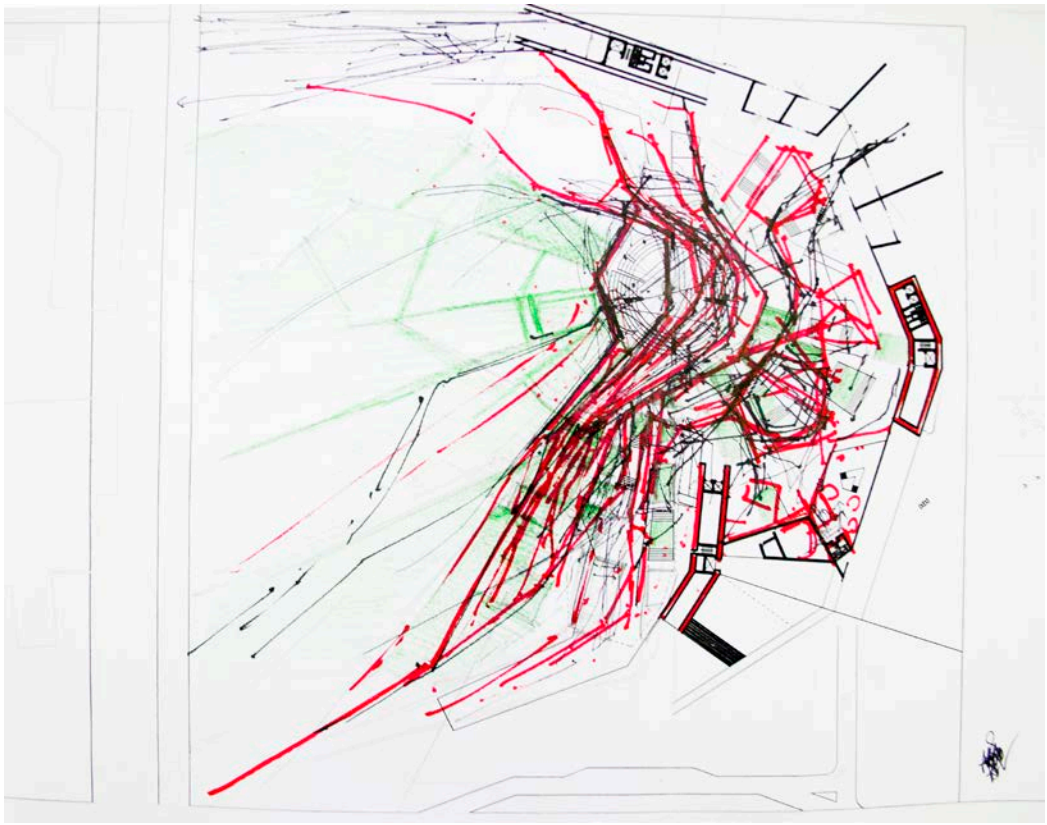
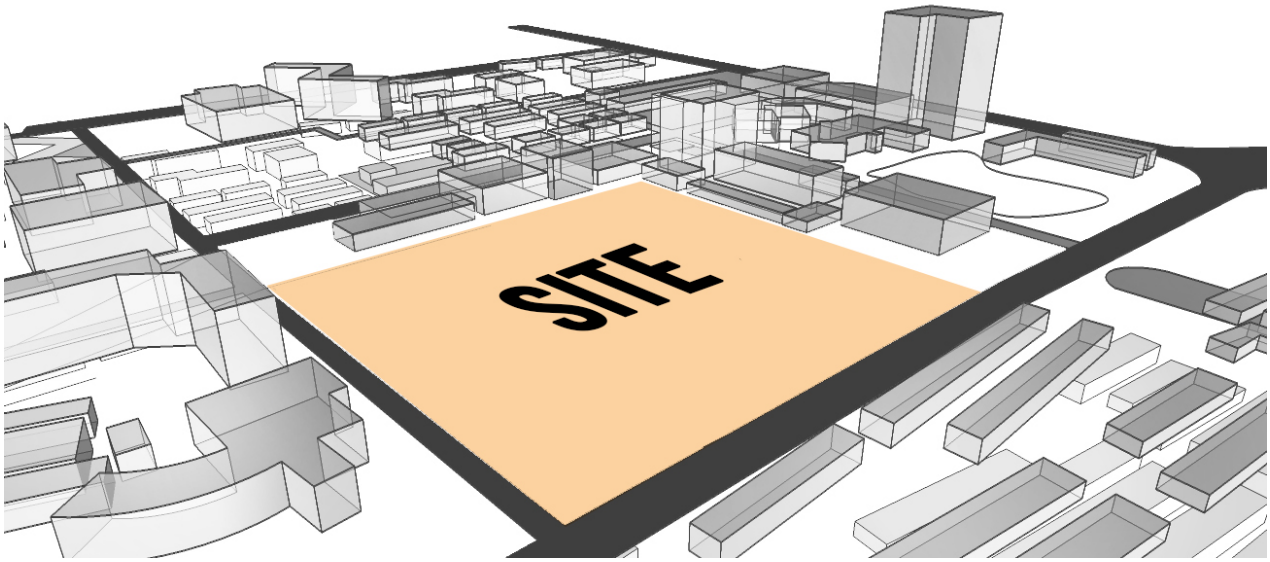


Fig. 6.1.2.6 Final schematic

6.2 Design phases:

The design phases are explained step by step below through diagram:

1.



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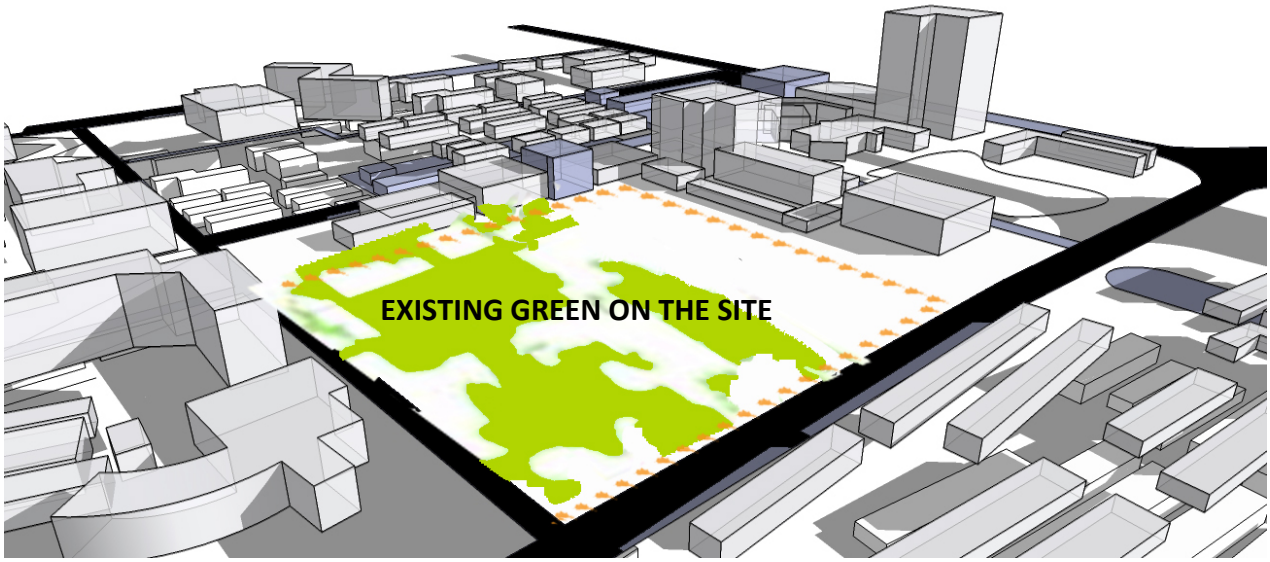
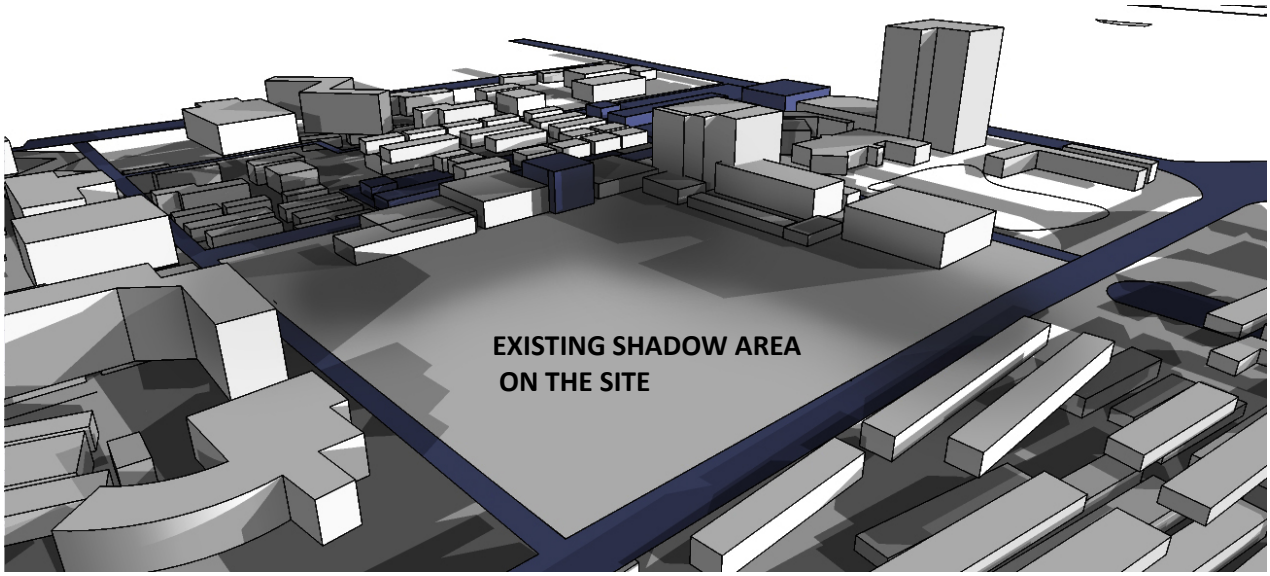


3.



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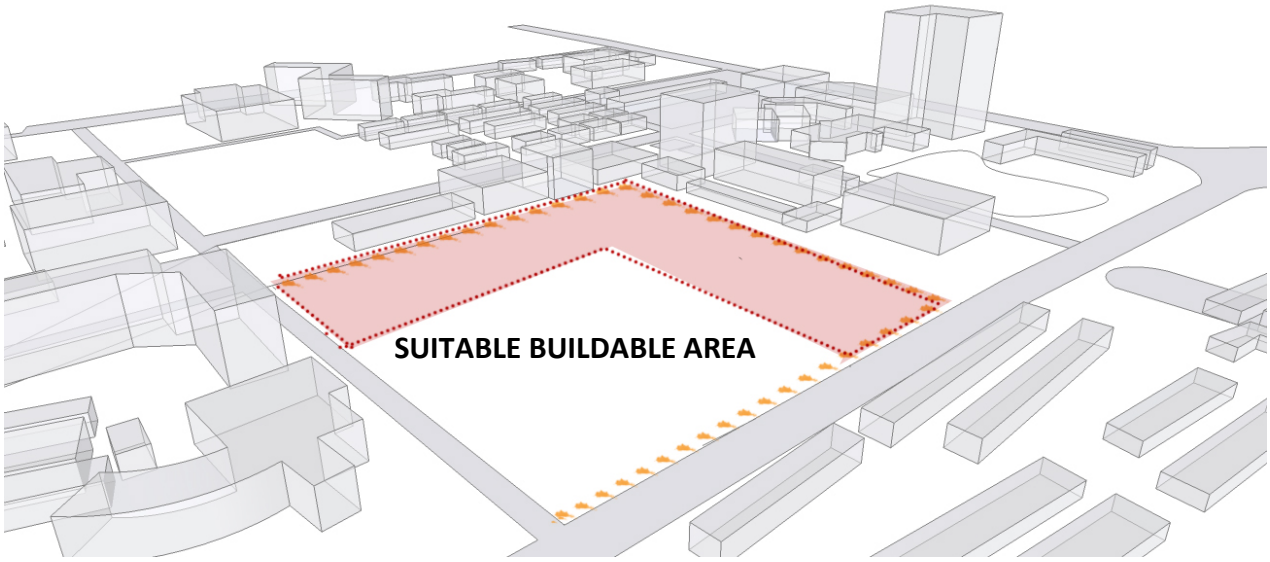

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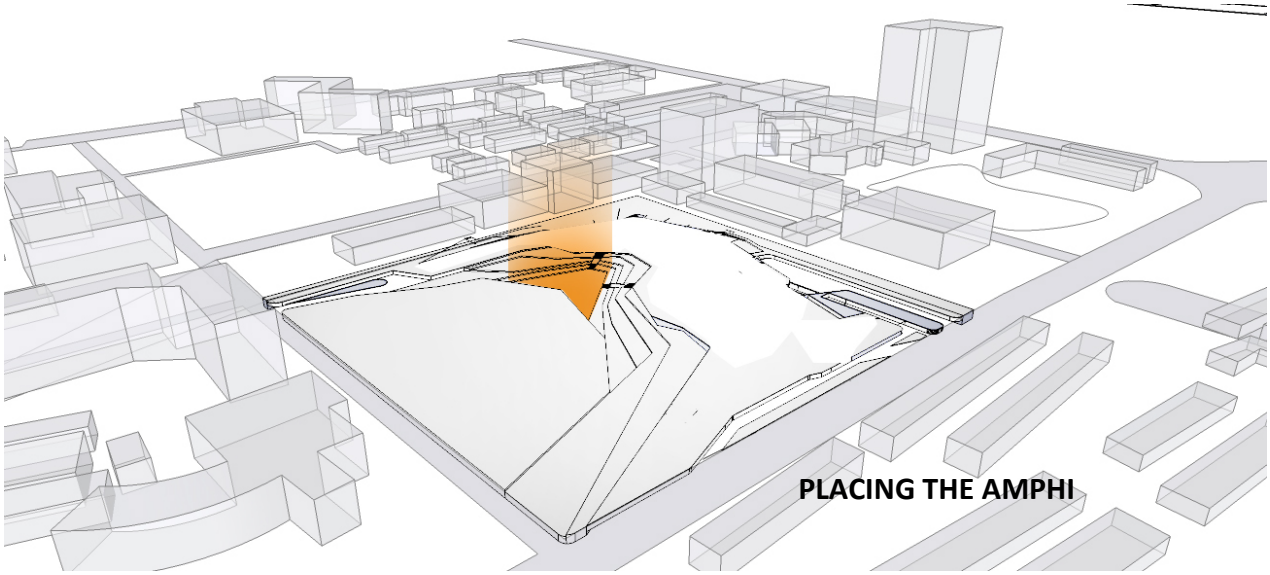

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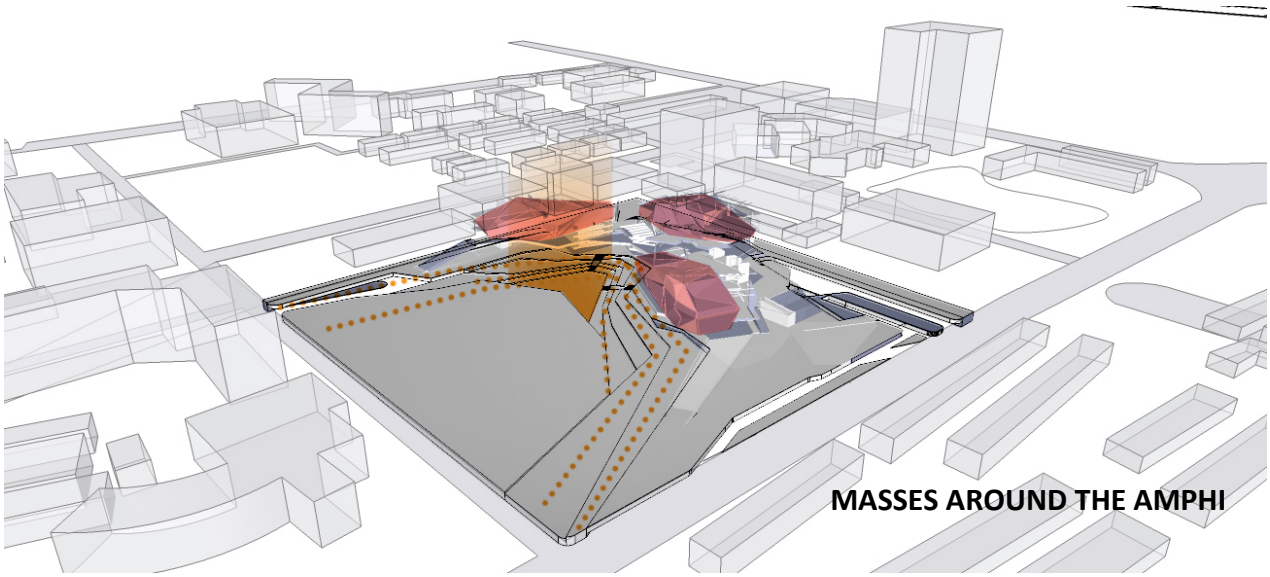

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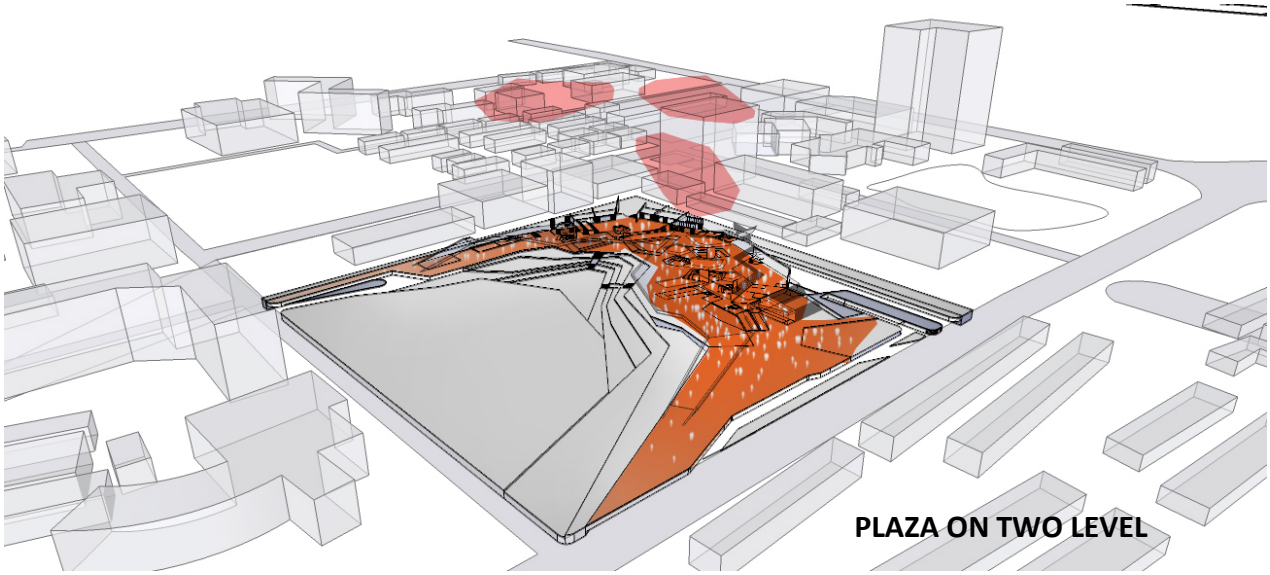

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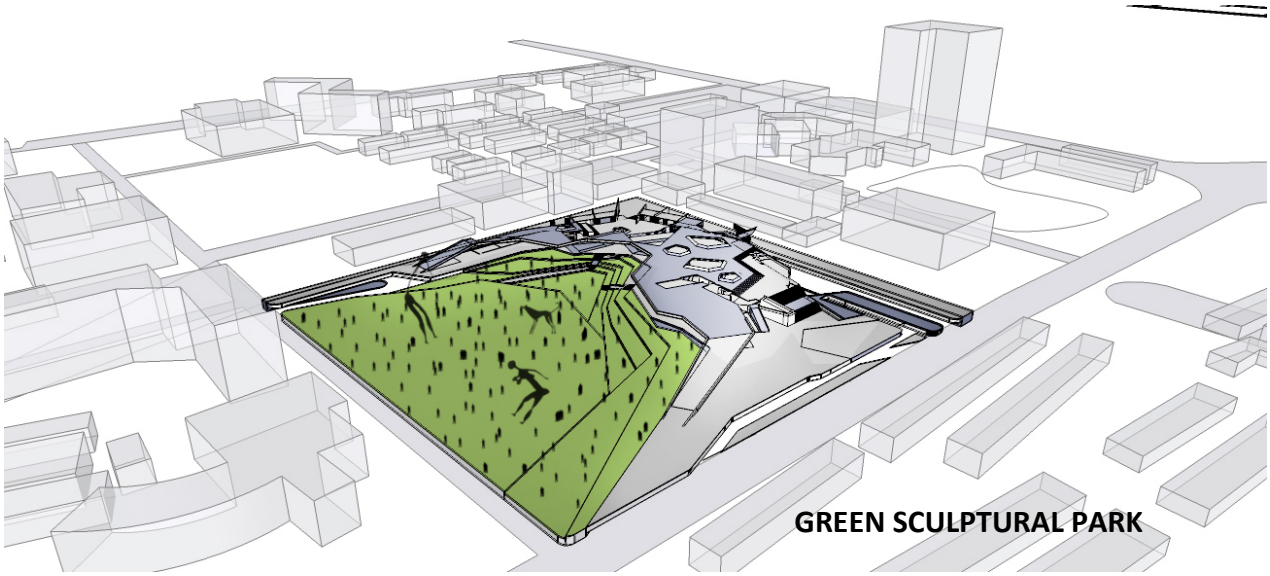

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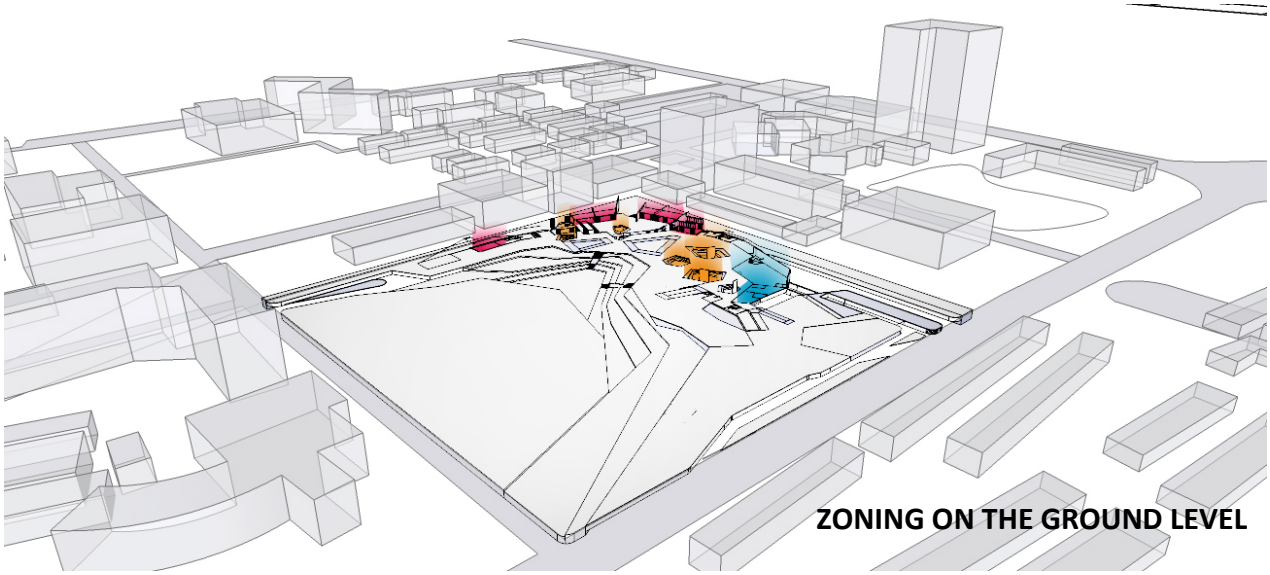
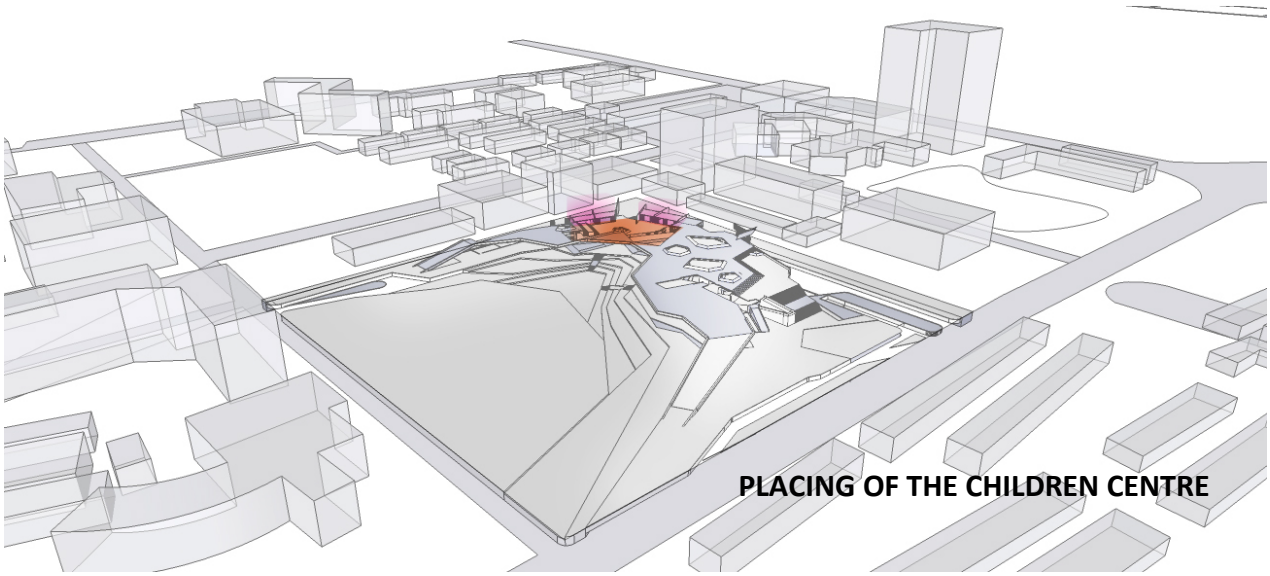


ZONING ON THE GROUND LEVEL

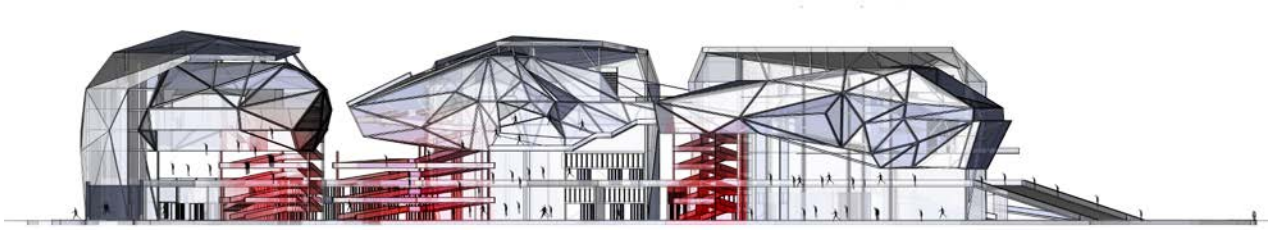
- ***ACTIVITY AREA***
- ***RESTAURANT***
- ***SHOP***

10.



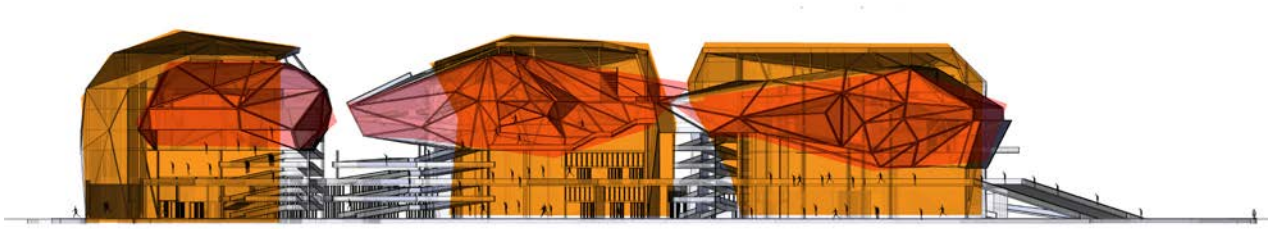
PLACING OF THE CHILDREN CENTRE

11.



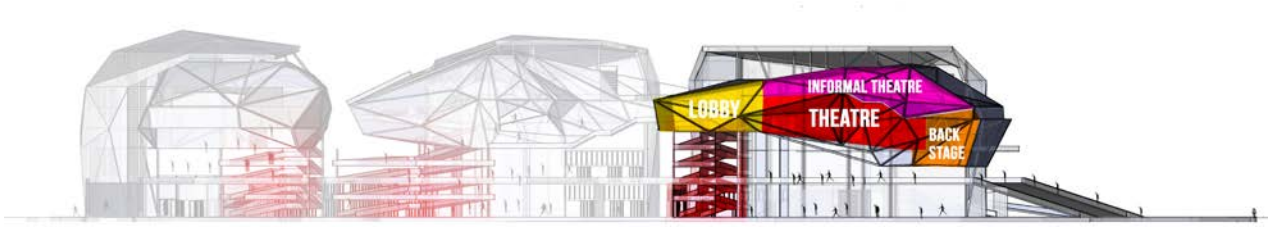
ACCESS THROUGH FROM THE GROUND LEVEL TO THE MASSES

12.



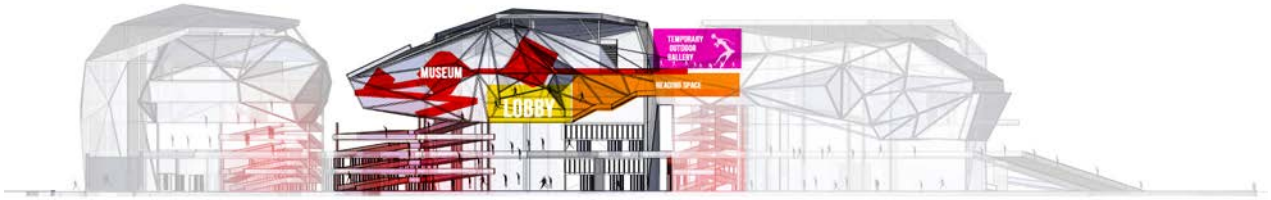
PACING THE CORE IN THE STRUCTURAL WALL ON THE SIDE

13.



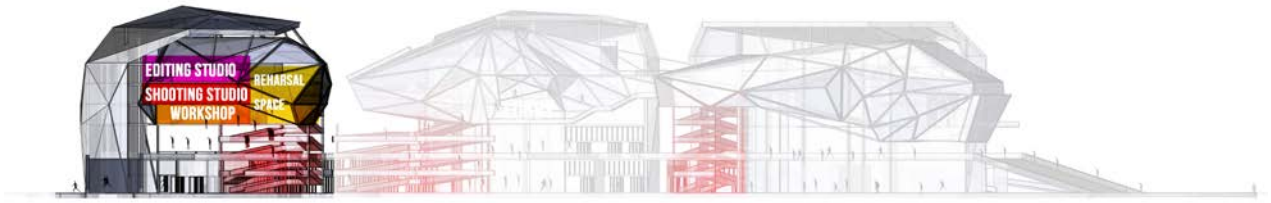
ZONING OF THE THEATRE

14.



ZONING OF THE MUSEUM

15.



ZONING OF THE SHOOTING STUDIO

Fig. 6.2 Design phases

6.3 Final design:

6.3.1 Plans:

Fig. 6.3.1.1 Site plan

Fig. 6.3.1.2 Plan at +6'

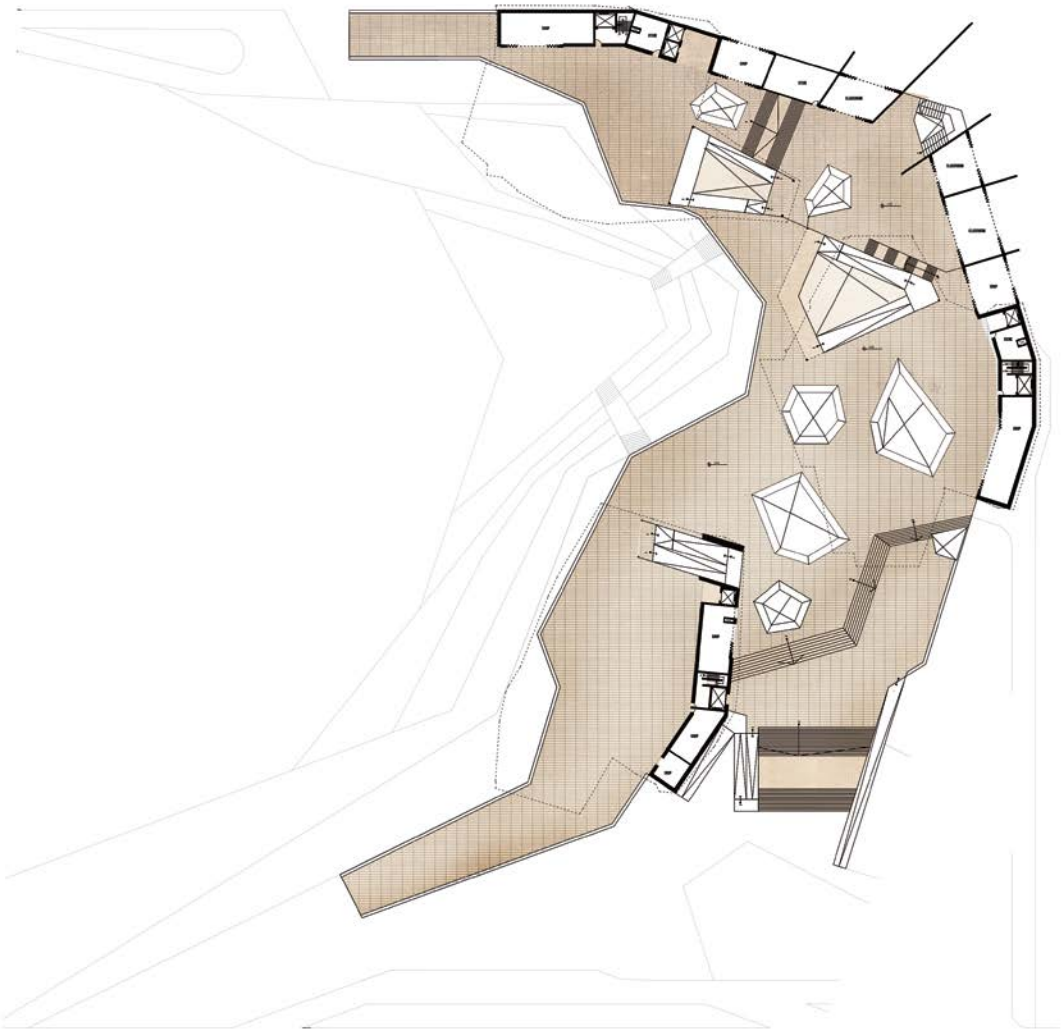


Fig. 6.3.1.2 Plan at +25'

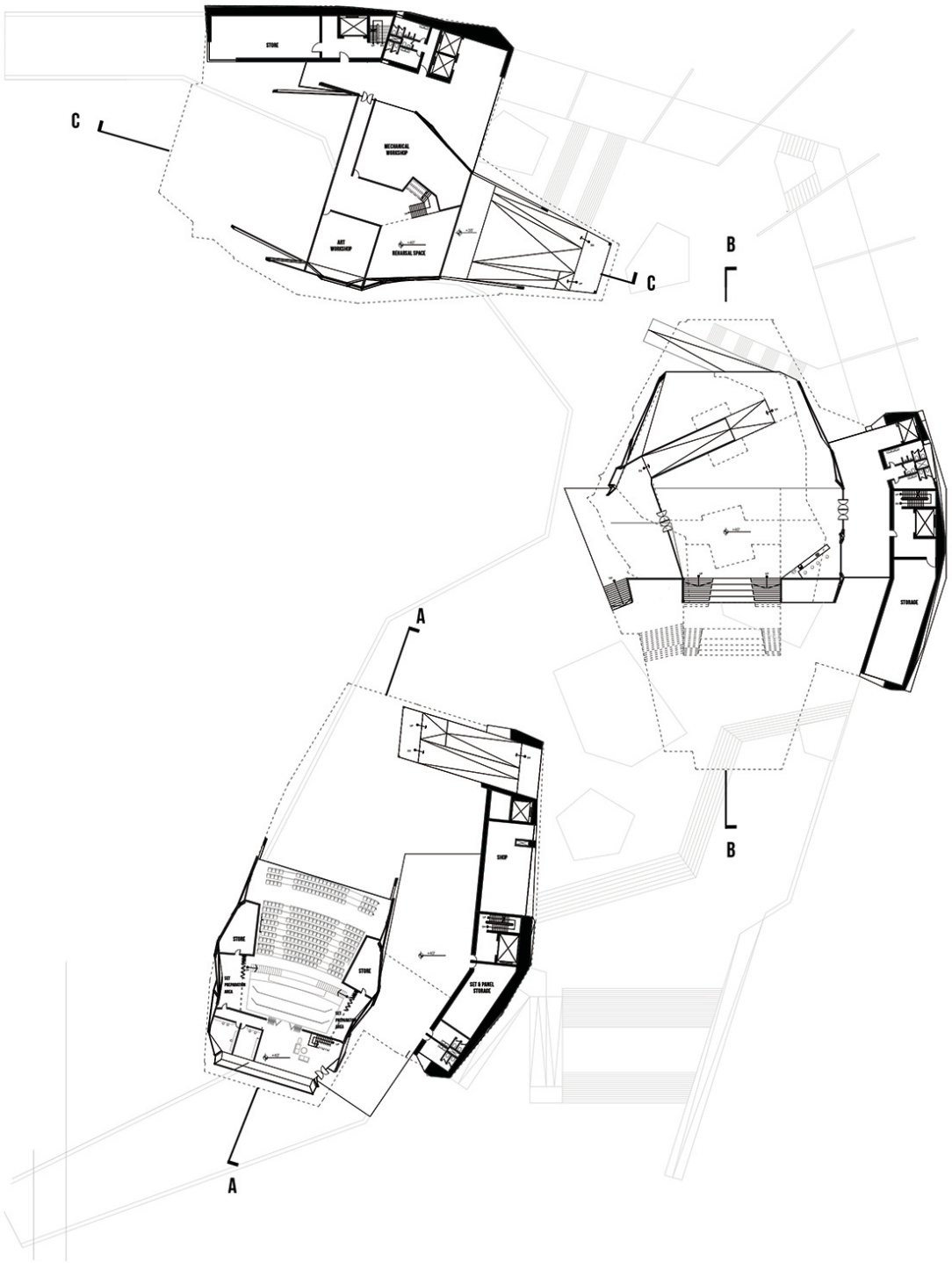


Fig. 6.3.1.3 Plan at +46'

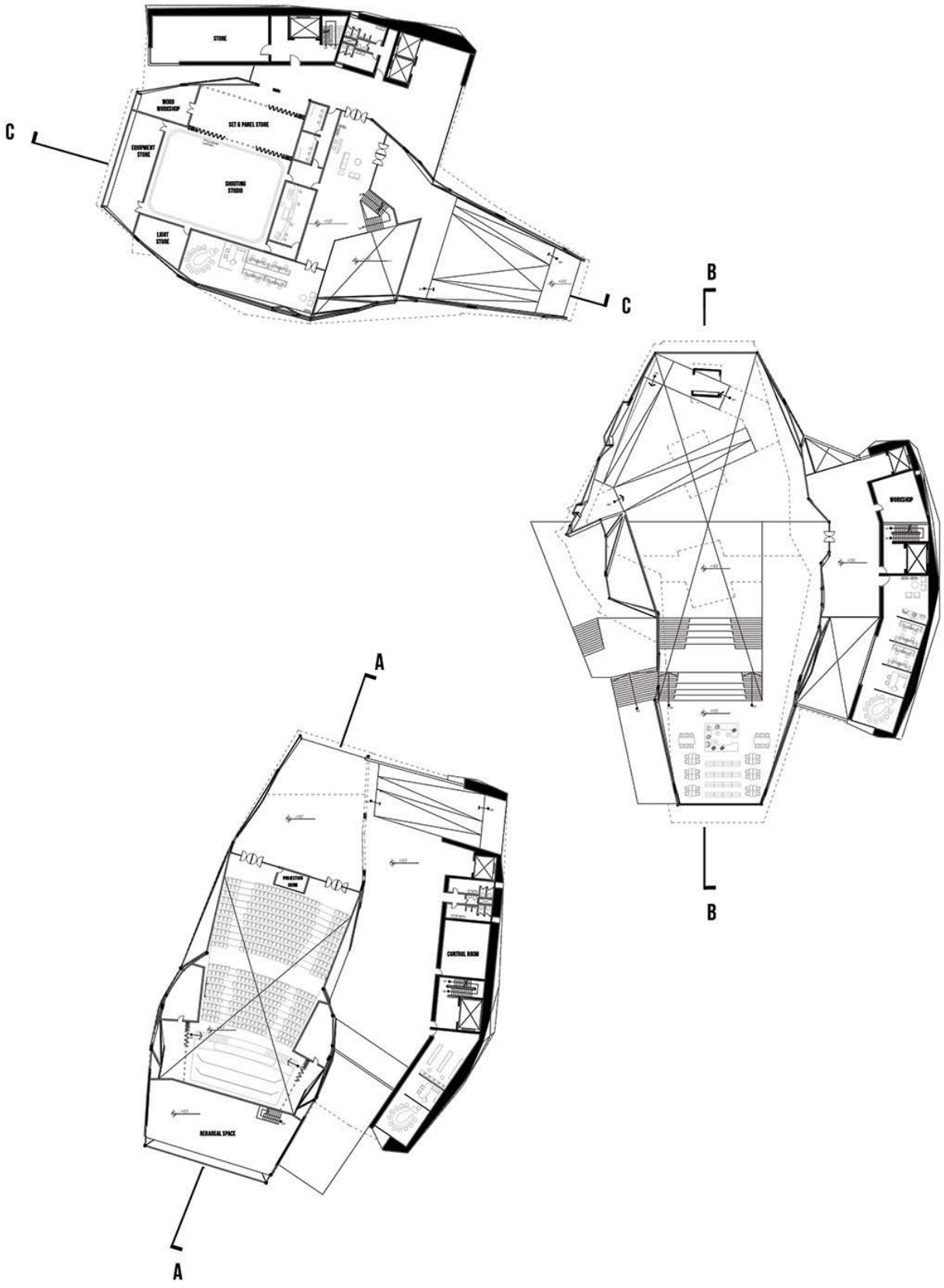


Fig. 6.3.1.4 Plan at +58'

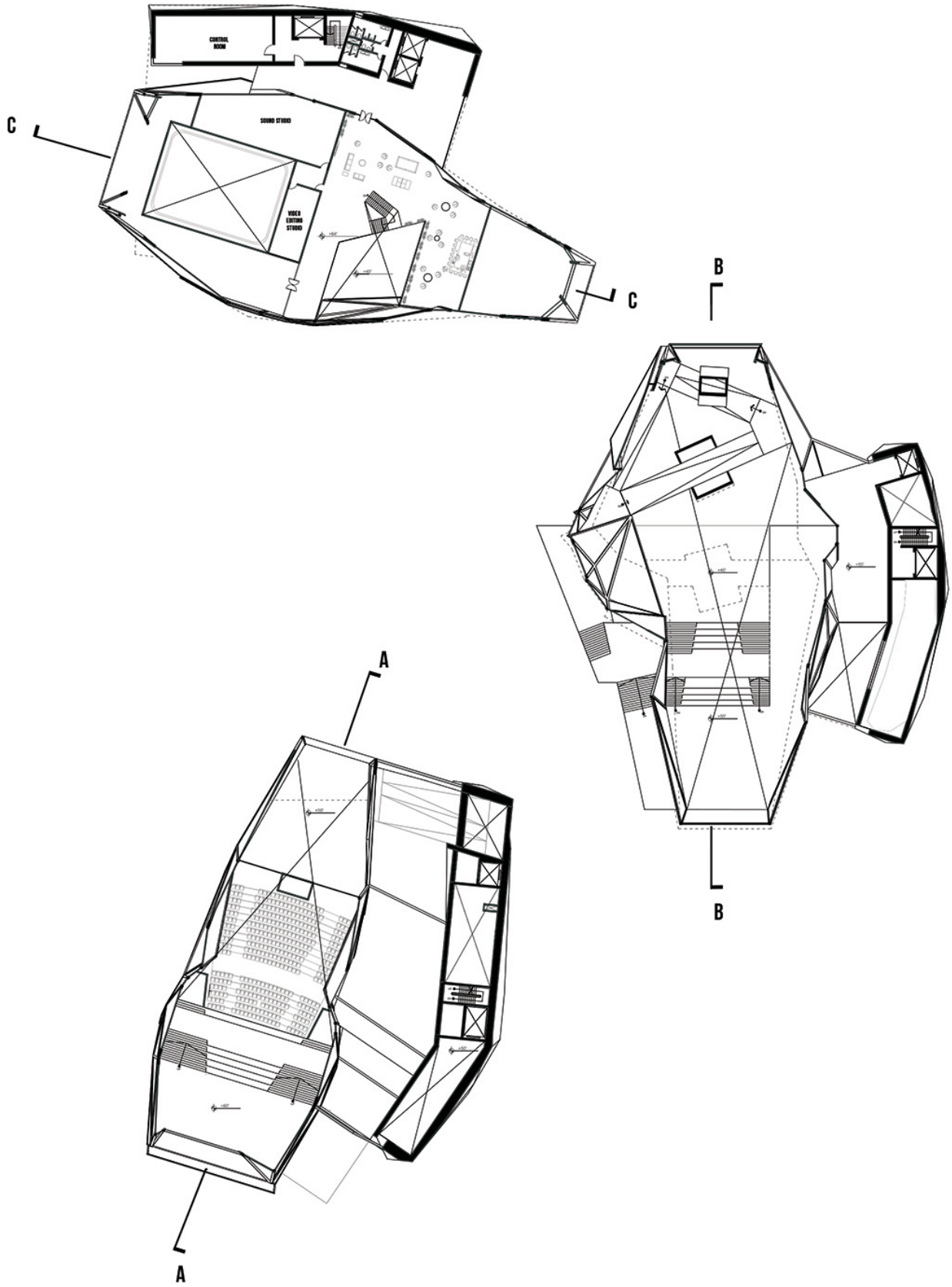


Fig. 6.3.1.5 Plan at +68'

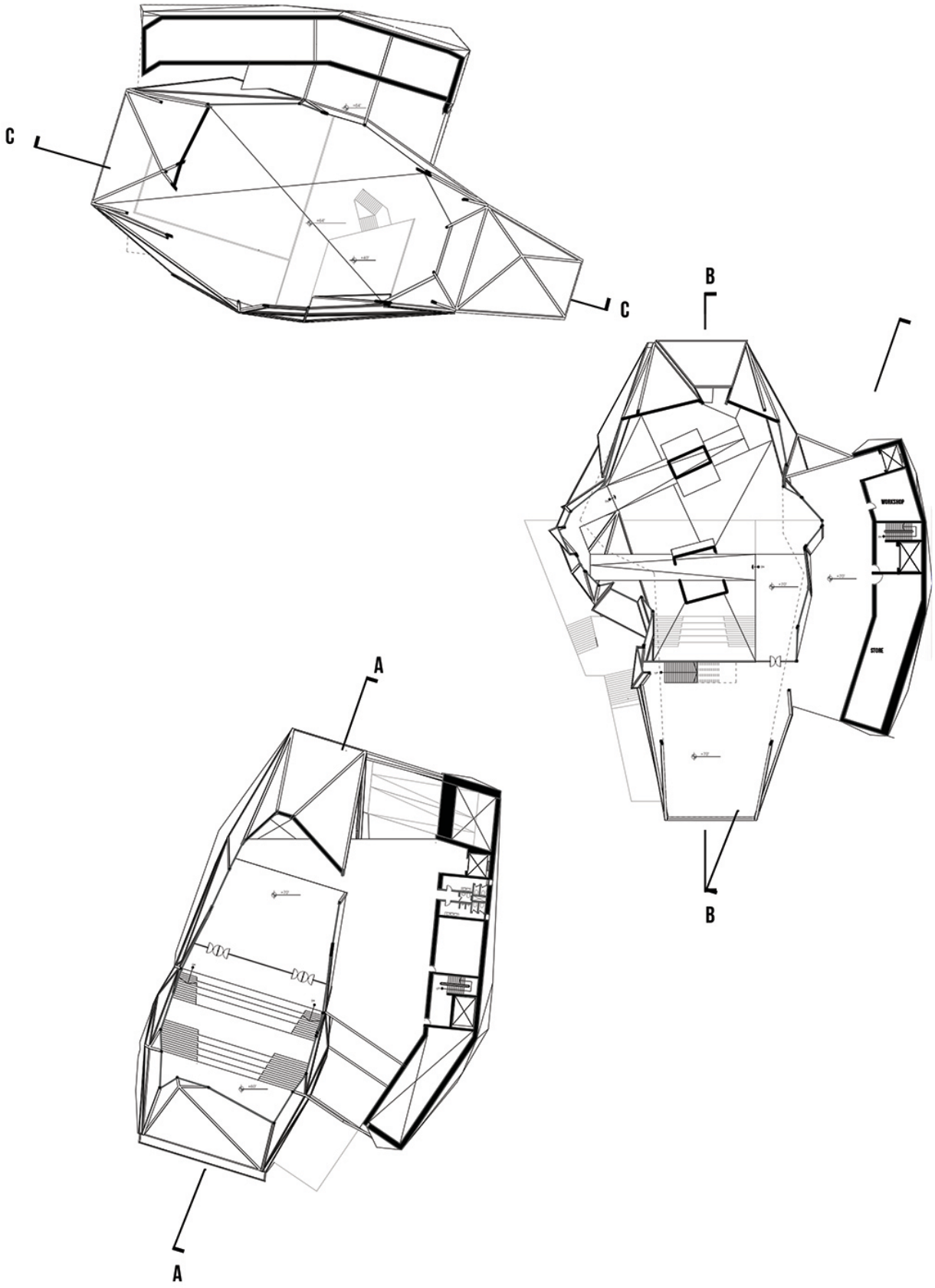


Fig. 6.3.1.6 Plan at +78'

6.3.2 Sections:

Fig. 6.3.2.1 Section A-A

Fig. 6.3.2.2 Section B-B

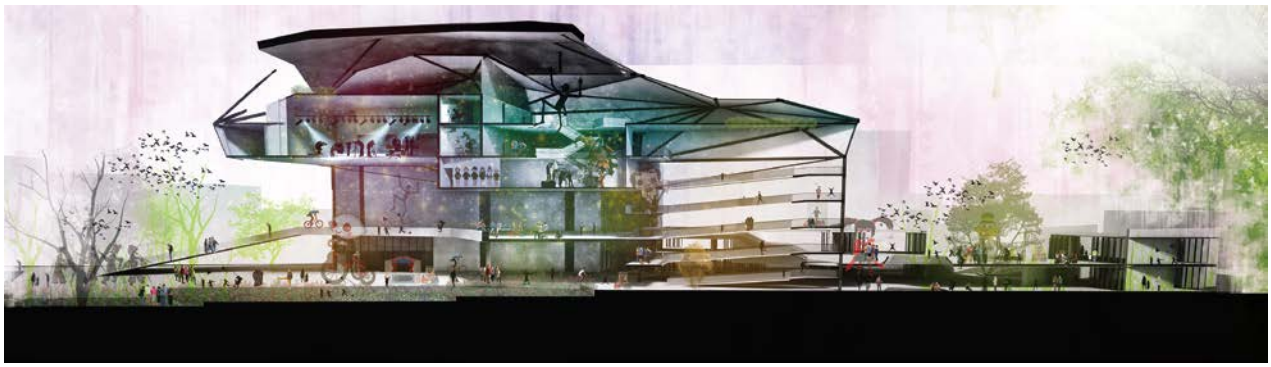


Fig. 6.3.2.3 Section C-C

6.3.3 Structure:

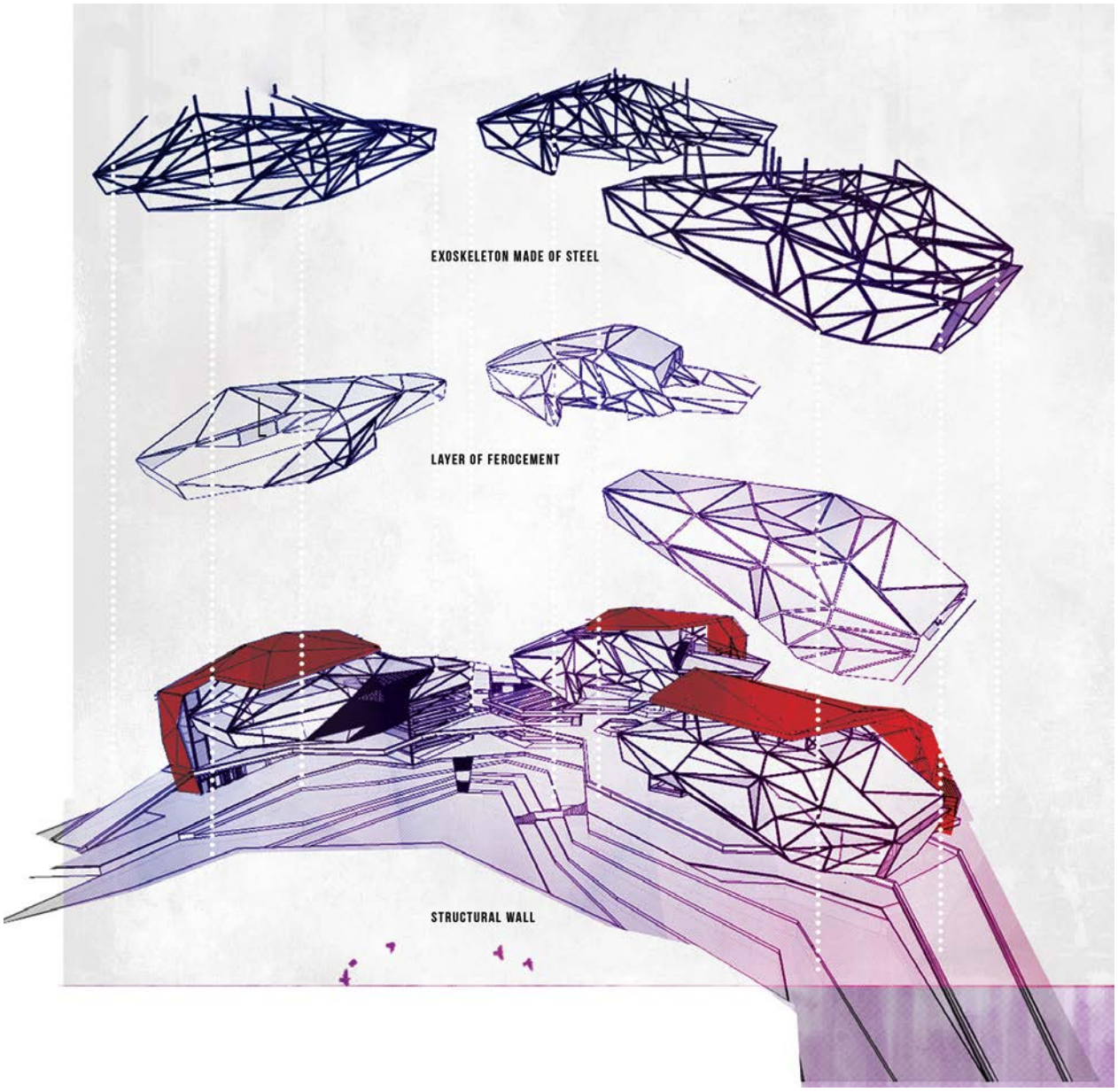
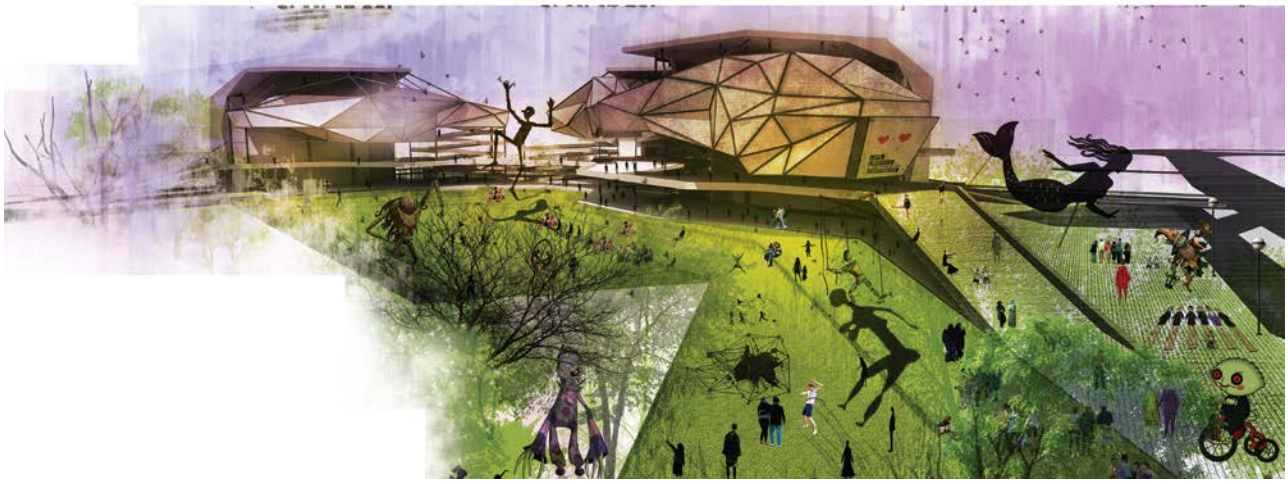
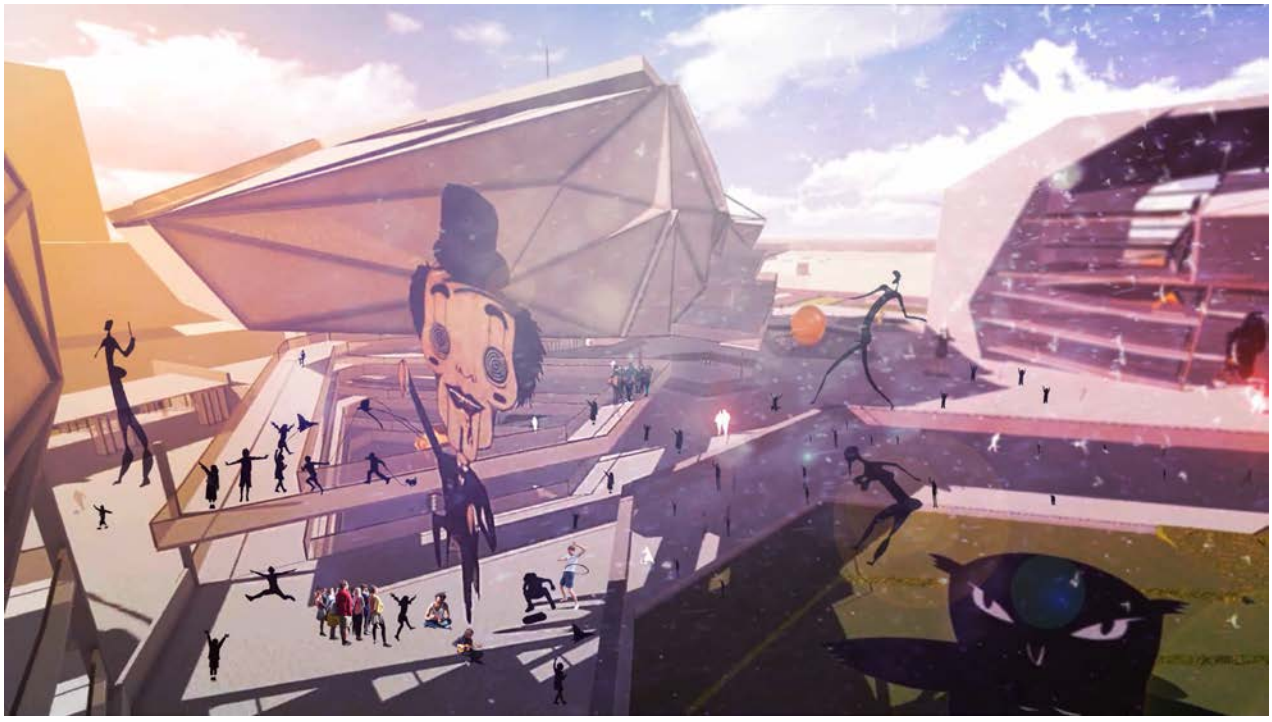


Fig. 6.3.3 Axono

6.3.4 Computer generated images:





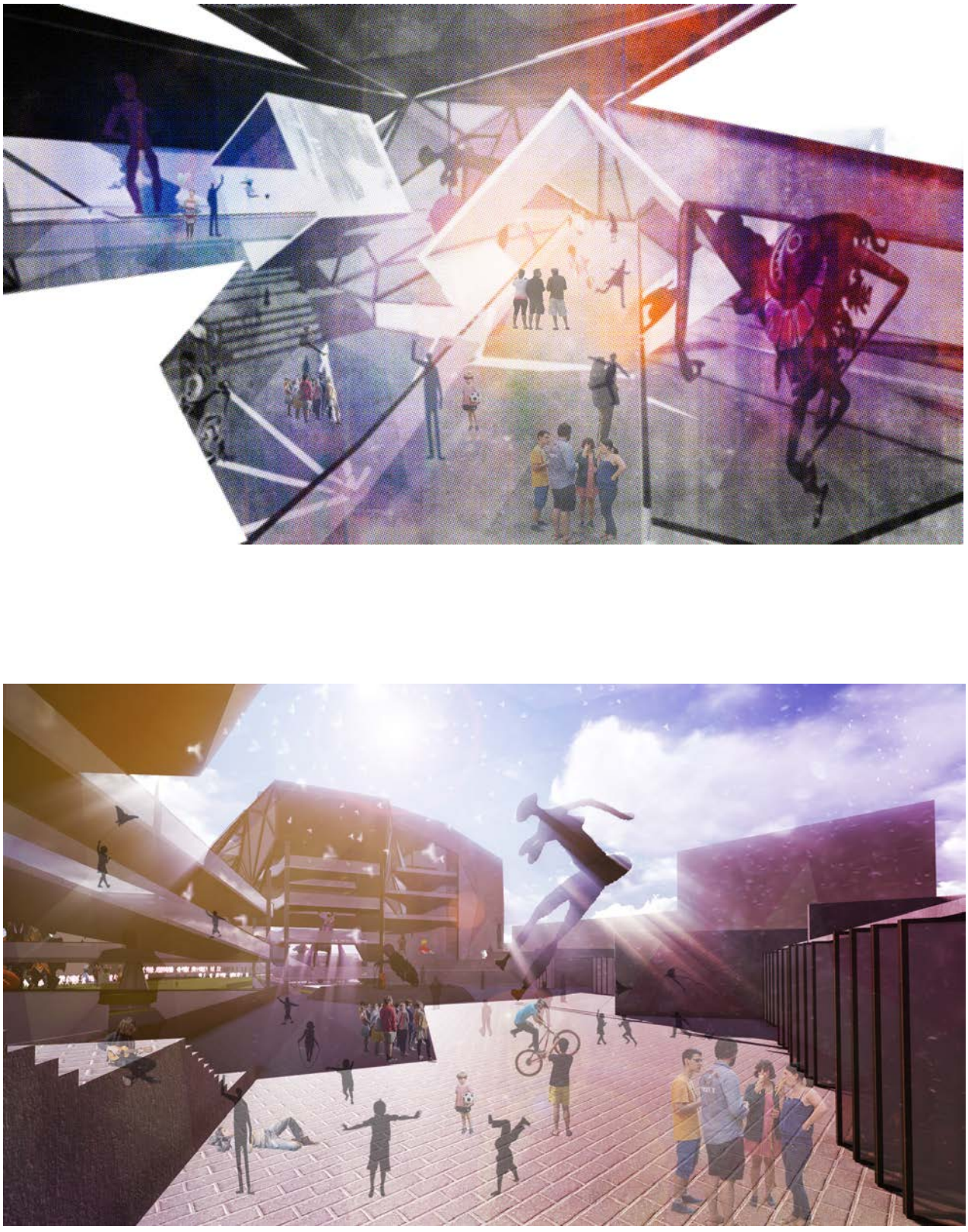
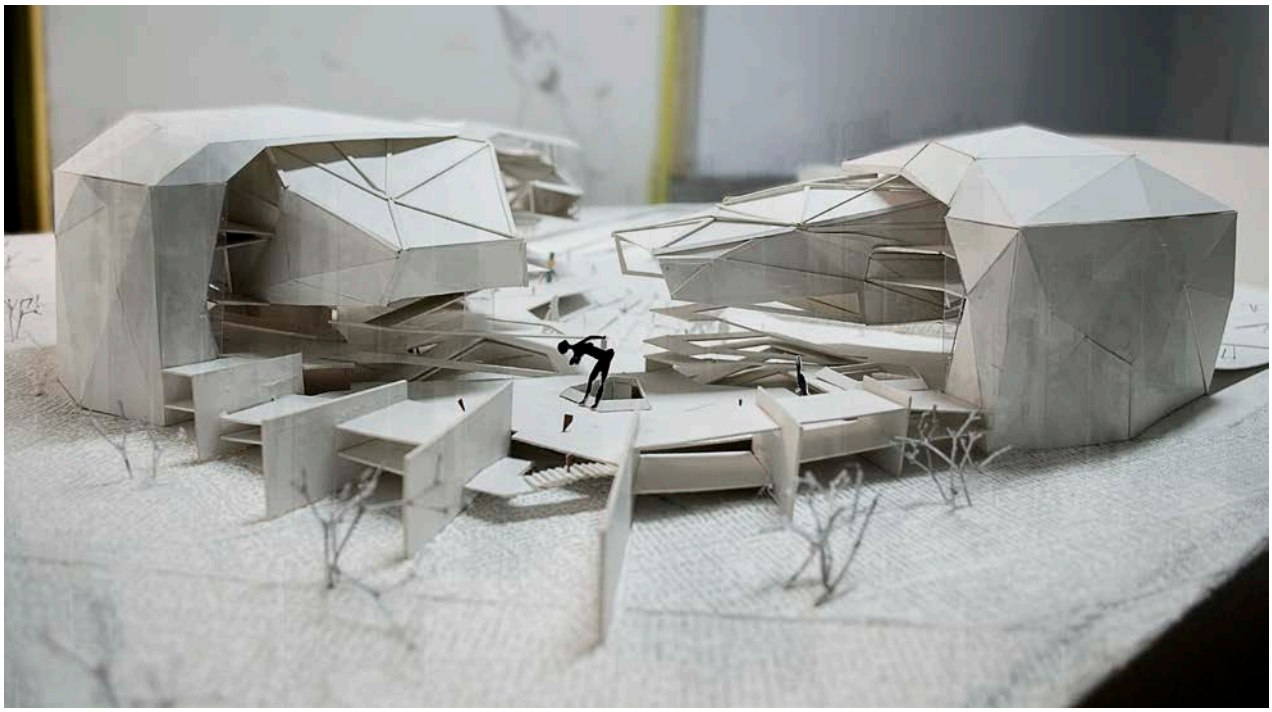


Fig. 6.3.4.1. Rendered image

6.3.5 Model images:



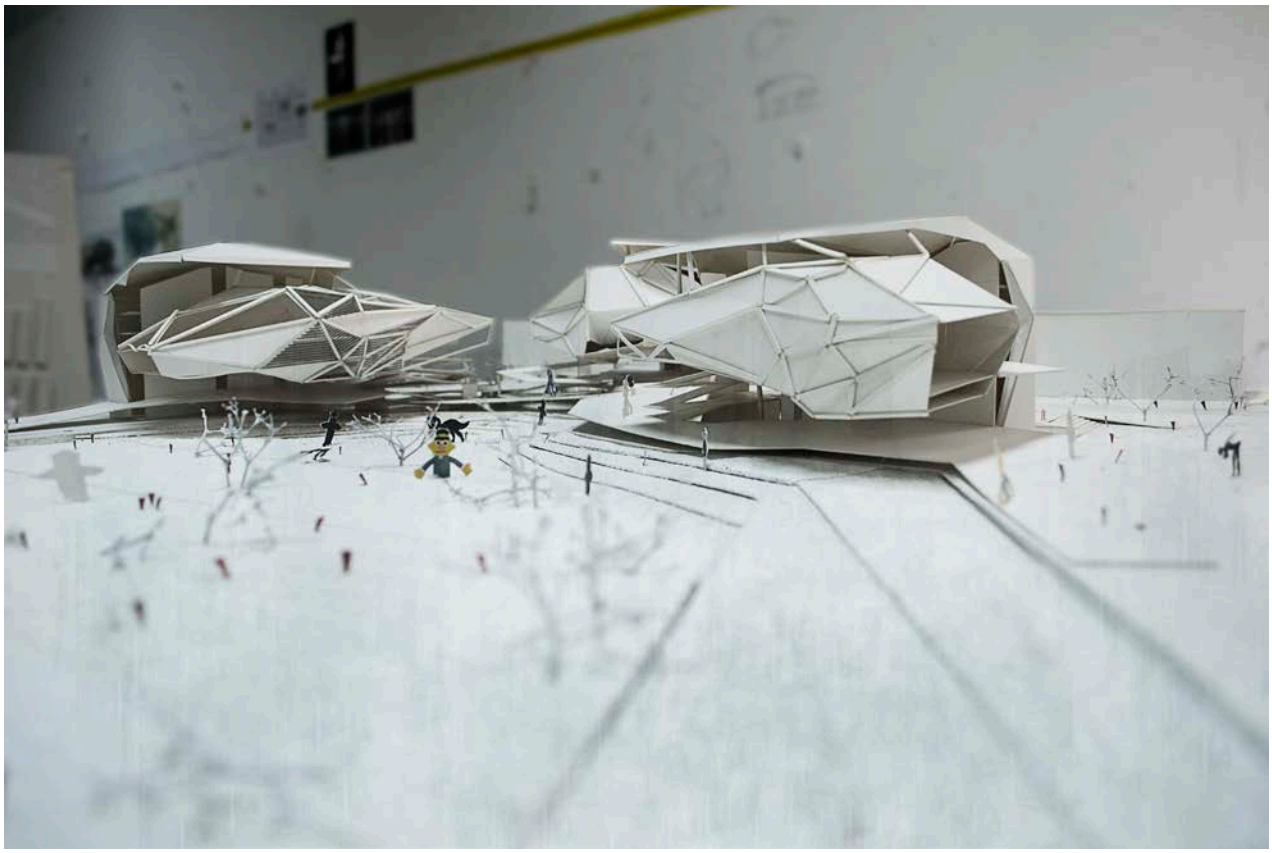


Fig. 6.3.5 Model images

Chapter 7: Conclusion

This project aims to revive the lost tradition of our country which has been an ancient and universal source of fun and entertainment for all ages specially the children. Puppetry has already gained new grounds in education and other filed of social system, and this can be enhanced through the project if built as it is aimed.

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