RE-2022-30856-plag-report

by Research Experts 74

Submission date: 30-Jun-2022 04:26AM (UTC-0500)

File name: RE-2022-30856.docx (7.25M)

Word count: 10894

Character count: 58333

AN ATTEMPT TO CREATE POSITIVE IMPACT OF ORPHAN HOOD IN CHILDREN GROWING WITHOUT BIOLOGICAL PARENTS THROUGH DESIGN

34

A Thesis Submitted

in Partial Fulfillment of the Requirements

for the Degree of

MASTERS OF ARCHITECTURE

IN

GENERAL

2019-2022

BBD UNIVERSITY

BY:

AMITABH SHARMA

(ROLL NO. : 11901090025)

SCHOOL OF ARCHITECTURE, BBDU

CERTIFICATE

It is certified that the work contained in this thesis **An Attempt To Create Positive Impact Of Orphan Hood In Children Growing Without Biological Parents Through Design"** by **AMITABH SHARMA** (ROLL NO. : 11901090025) for the award of **Master of Architecture** from Babu Banarasi Das University has been carried out under my supervision and that this work has not been submitted elsewhere for a degree.

Signature

(AR.SHAILESH KR. YADAV)
(Asst. Professor)

SOAP BBDU LUCKNOW Date:

ACKNOWLEDGEMENT-

"A researcher must acknowledge the role of almighty in their lives as without their perennial guidance and protection the task in hand never gets completed."

Before I begin I would like to express my gratitude to all those who have directly or indirectly helped me in my study, Any academic assignment or research cannot be accomplished without an able guidance of a teacher, I am happy to mention my special thanks to my guide **Ar. Shailesh Kr. Yadav** and thesis coordinator **Ar. Keshav Kumar** .

I am grateful to my friend and collogue **Ar. Manish Tripathi** across my research, and was always attentive to my numerous question and curious observations.

Concentration, dedication, hard work and application are essential but these are not the only factors required to archive the desired goal these must be supplemented by moral support and positive environment my special thanks to my better half **Ar. Bhawna Sharma,** my brother **Er .Aman Sharma** and entire family for their believe and sacrifice to make this research a success story.

At the end I would like to thank (Prof.) **Ar. Mohit Agarwal** Dean and (Prof.) **Ar. Sangeeta Sharma H.O.D, School Of Architecture And Planning**, BBDU **Lucknow,** for providing me with the opportunity to work on this Project.

ABSTRACT

It has been seen that so far majority of the structures or buildings designed taking children as primary users, have been designed from the perspective of adults and there is a gap between the psychological needs and the spaces designed for the children. Children perceive spaces differently than adults. They are genetically programmed to interact with nature, and manipulate things which they cannot find in architecture, consequently, the children could not develop sense of favorite place to the architecture. In other words, the architecture fails to stimulate the children's cognitive functioning, affords insufficient space for physical functioning on the children's terms, and allows little opportunities for the children to socialize in their own choice and control. This thesis would be focusing on providing an environment conducive for the positive cognitive, physical and social growth of the children. To do this a literature review would explore the various theories on the perception and spatial need of the children and methods to overcome the psychological problems the orphan children are faced with. All these theories shall be translated in architectural design interventions focused on providing a psychologically healthy and playful environment to grow up in.

Keywords: Children, Perceptual Psychology, spatial need, design guidelines, architecture, Built environment, design interventions

CONTENTS

- **MUNICIPAL ORPHANAGE, AMSTERDAM**
- INTRODUCTION:
- LOCATION:
- DIVISION OF SPACES:
- CIRCULATION PATTERN:
- CLIMATE CONSIDERATIONS:
- VOLUME:
- DESIGN FEATURES

4. OUT COME OF LITERATURE REVIEW

❖ CHILDREN PERCEPTION OF BUILT ENVIRONMENT

✓ PERCEPTUAL DIVISION OF SPACE

✓ PARTICIPATORY METHODS

✓ LIGHT AND SHADOW

✓ SOUND

✓ TEXTURE

✓ COLOUR

✓ WATER

✓ SMELL

❖ WHAT IS BUILT ENVIRONMENT

- SENSE OF BELONGING TO PLACE
- SENSE OF IDENTIFICATION OF SPACE

❖ SPACE IN THE FUNCTION OF PSYCHOLOGICAL STABILITY OF A CHILD

- ✓ SPATIAL NEED OF CHILDREN OF DIFFERENT AGE GROUP
- ✓ HIERARCHY OF OPEN SPACES AS A DEFENCE MECHANISM
- ✓ FUNCTIONING OF EARLY AND MIDDLE CHILDHOOD
- ✓ INDICATORS OF LOCAL ENVIRONMENT QUALITY
- ✓ PERCEPTION OF PUBLIC SPACE
- ❖ ORPHAN PSYCHOLOGY
- ❖ METHODS TO COUNTERACT PSYCHOLOGICAL ISSUES
- ❖ HEALING GARDENS FOR CHILDREN
- ❖ COLOUR THERAPY
- ❖ ARCHITECTURE INTERVENTIONS
- ❖ PSYCHOLOGICAL EFFECT OF LINE, SPACE, SHAPE, AND FORM
- ❖ TEXTURE AND PATTERN

1. INTRODUCTION

Orphans exist in every age and in all civilizations. According to the joint report of UNICEF, HIV/AIDS and Development (2002), about 1.7 billion children are orphans worldwide. Out of this number, Asia contributes 6.5% orphans and Africa leads with 11.9% orphans. China have about 573,000 orphans below 28 years old (Orphan report), and an estimated 650,000 children are in Russian children's homes.

The purpose of this study is to study the effect of the built environment on the vulnerable children, the orphanage should not be limited providing basic housing and sustenance needs but should acknowledge that the homeless children have special mental needs due to the various traumas they have suffered in such a delicate age these needs must catered actively by the caretakers as well as passively through design by architects.

What is Childhood?

Childhood is the time for children to be in school and at play, to grow strong and confident with the love and encouragement of their family and an extended community of caring adults. It is a precious time in which children should live free from fear, safe from violence and protected from abuse and exploitation. Childhood is the age span ranging from birth to adolescence. According to Piaget's theory of cognitive development, childhood consists of two stages: preoperational stage and concrete operational stage. In developmental psychology, childhood is divided up into the developmental stages of toddlerhood (learning to walk), early childhood (play age), middle childhood (school age), and adolescence (puberty through post-puberty). Various childhood factors could affect a person's attitude formation.

I'd give all wealth that years have piled,

The slow result of Life's decay,

To be once more a little child For one bright summer day.

~Lewis Carroll, "Solitude"

AIM:

To create an environment catering to the specific psychological, social and physical needs of the vulnerable children through architectural design.

OBJECTIVES:

- To identify the issue of the negligence of spatial need of children in built environment
- To assess the psychological impact on the children who have lost their parents or those who are growing without biological parents.
- List the various psychological issues.
- To understand the relationship between the spatial character and psychology of children.
- Review existing practical design interventions to meet the children spatial need.
- Prepare spatial guidelines for designing for children.
- To make and attempt to mitigate the negative impacts of orphan hood in children through design.

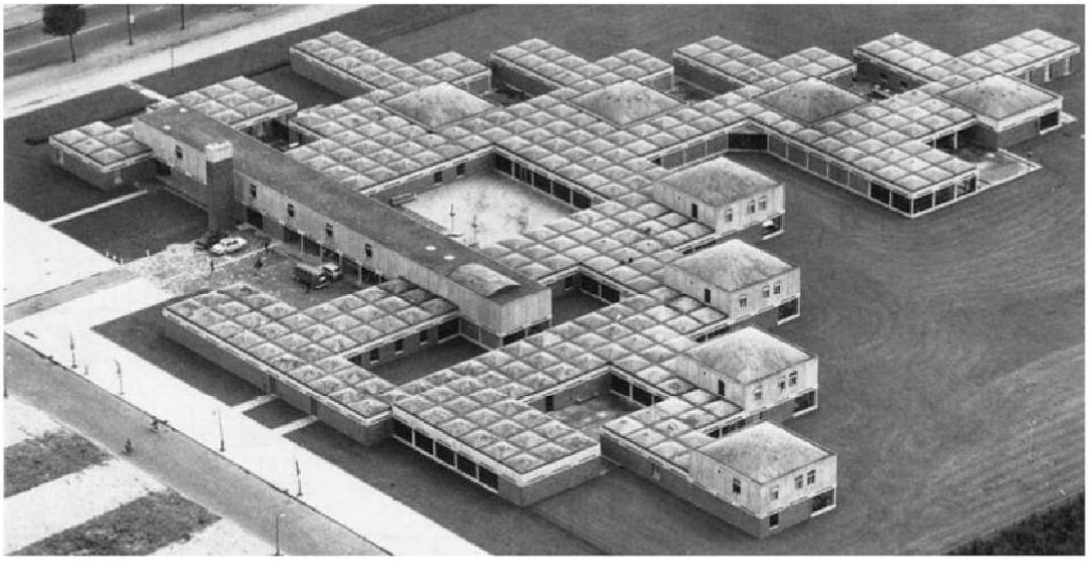
SCOPE:

- To design a well synthesized and landscape site plan corresponding to the site context along with the parking.
- Create a scheme for the accommodation of the orphaned girls along with administration, recreational, and academic facilities

2. METHODOLOGY

3. Literature study

MUNICIPAL ORPHANAGE, AMSTERDAM:



Ariel view of the orphanage

- **INTRODUCTION:**

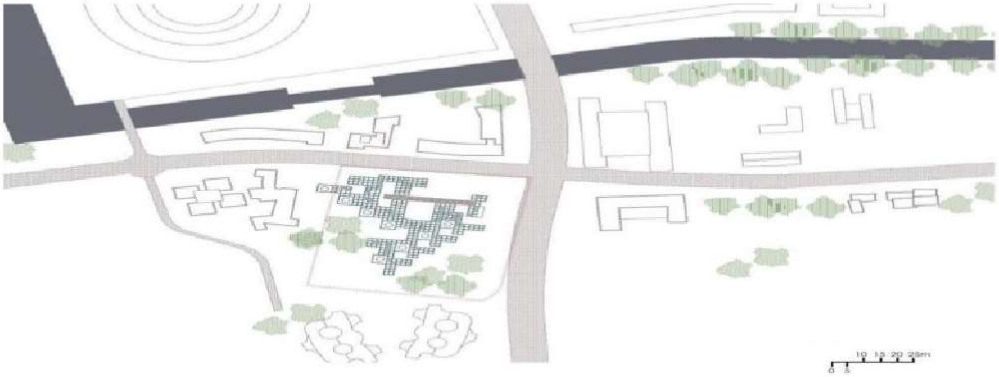
Amsterdam children's home was design by, Dutch Architect, Aldo Van Eyck, in 1960. The design of the children's home was concentrating on creating, at the same time, a home and a small city on the suburbs of Amsterdam city. It is a house that provides accommodation to one hundred and twenty five children between new-born and twenty years old.

The children's home was laid out in an orthogonal grid, and the functions of the building were placed in a diagonal path which this way all the spaces were equal since they were surrounded by the same analogy of interior and exterior spaces. The children's home was made out of two different module volumes; the smaller volume was the residential area and the larger volume was the public spaces where the

children would socialize. The modules were built with four round columns at the corners, a domed roof made by pre- cast concrete, and a concrete floor. The facades of the children's home were made either by glass or brick wall.

- **LOCATION:**

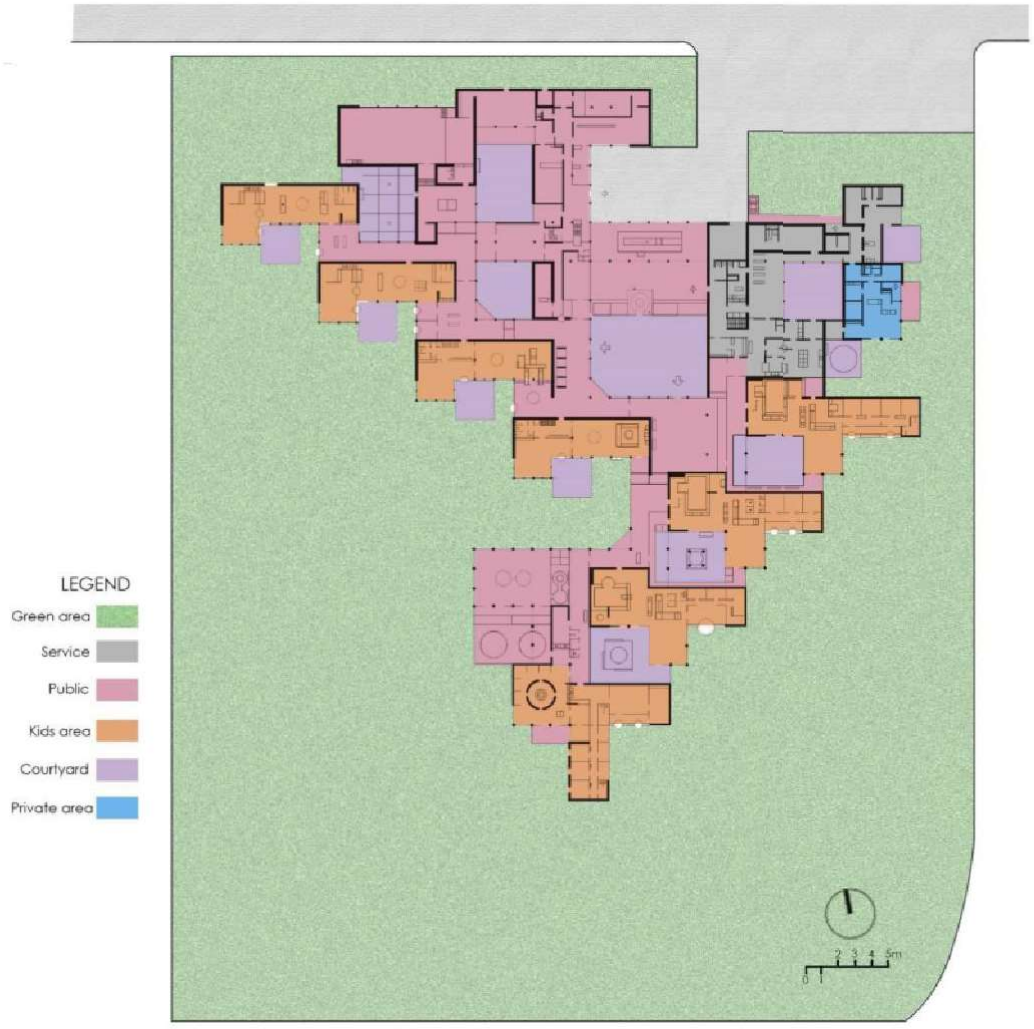
Site location with respect to city



The location was planned away from the city and nearby community and site can be accessed from two sides. The idea was to design a self-sufficient space with minimum

need of dependence with the outside world.

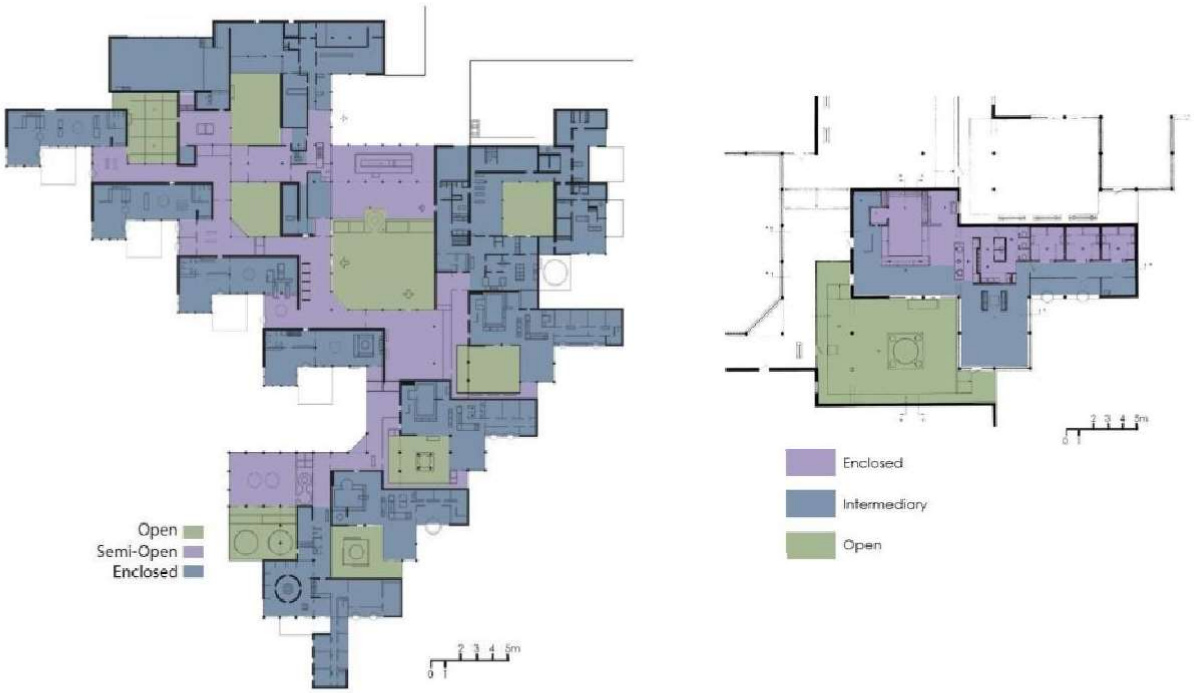
- **DIVISION OF SPACES:**



*Division of spaces based on function *source- author*

The built mass has been broken up to make space for courtyards of varying scale and movement corridors opening up into the courtyards provides the children with ample options for interaction spaces. Depending on the type of activity the children use the

Space for prescribed play as well as imaginative play. The broken up mass allows for sufficient day lighting inside the structure.



Division of spaces based on type of enclosure

**source- author*

14

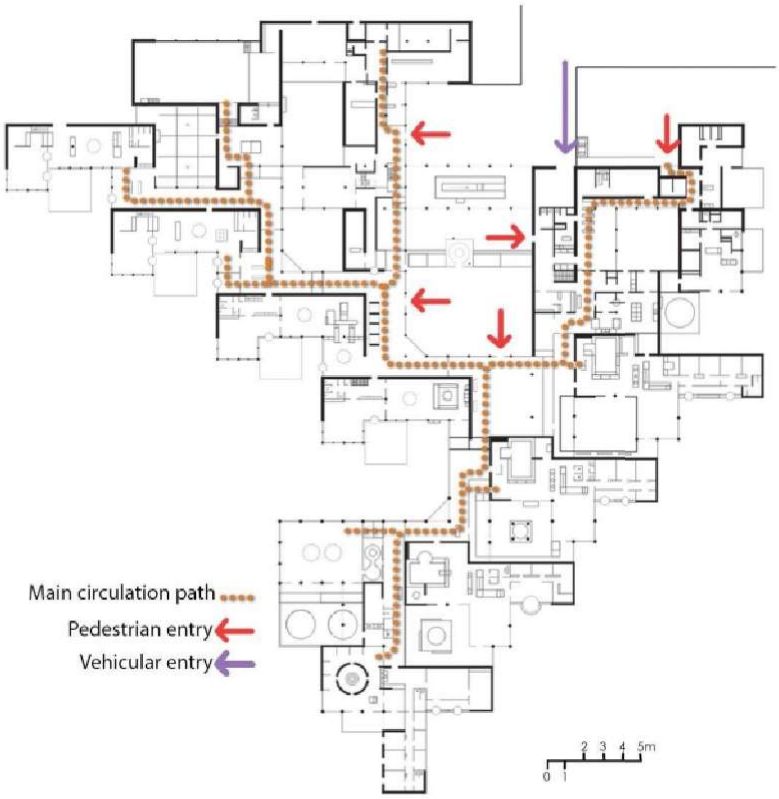
Along the axial lines of this grid, pillars, architraves and solid walls mark off a number of well-anchored, enclosed spaces: the living rooms and adjoining patios, the festive hall, gymnasium and central court. All are spaces related primarily to their centre, a centre established by the large dome-shapes, the axial lines of the grid generated by the small domes, and the axially placed doors. The inner court seems to be a latter-day version of a Renaissance 'cortile' and the interior streets at times recall Romanesque cloisters (Aldo van Eyck – Shaping the New Reality from the In-between to the Aesthetics of Number).

14

19

The geometrical order of the building is articulated by a contemporary version of the Classical Orders, composed of columns and architraves. The columns are slender concrete cylinders with fine 'fluting' left from the shuttering; the architraves are concrete beams, each with an oblong slit at the center. Their joined extremities give the impression of a capital, though capitals as such are absent. The small domes form a grid that extends evenly across the entire building so that the overall pattern can be read at every point.

- **CIRCULATION PATTERN:**



*Circulation patterns *source-author*

The entrance to the orphanage has been defined by a series of columns forming an implied plane; thus, making the entrance more welcoming, inviting.

Here the architect has tried to create a city within a city and hence the path configurations have been kept linear with meandering paths sharp turns, corners and their paths open into different spaces and not the whole experience of the building is given away at once but these paths open into hidden pockets of spaces otherwise not visible. Hence, there is a sense of discovery and exploration in the movement pattern.

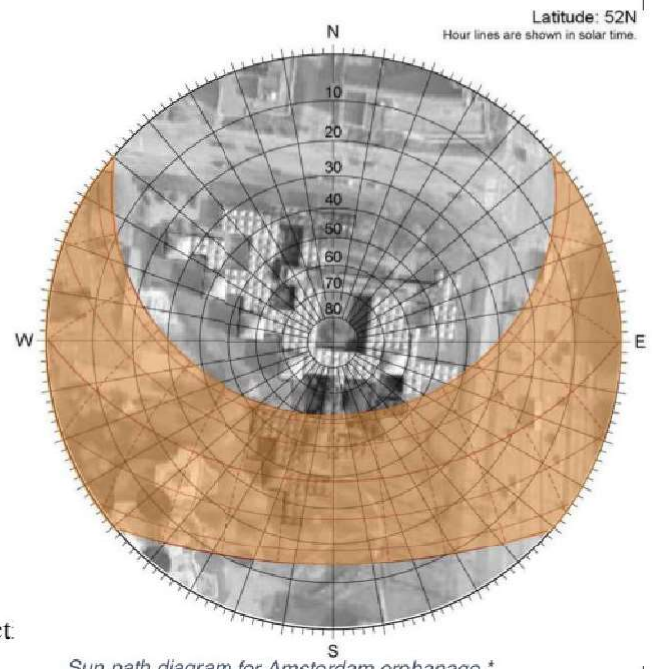
*City map of Amsterdam *In Search of a Utopia of the Present*

corner in Amsterdam

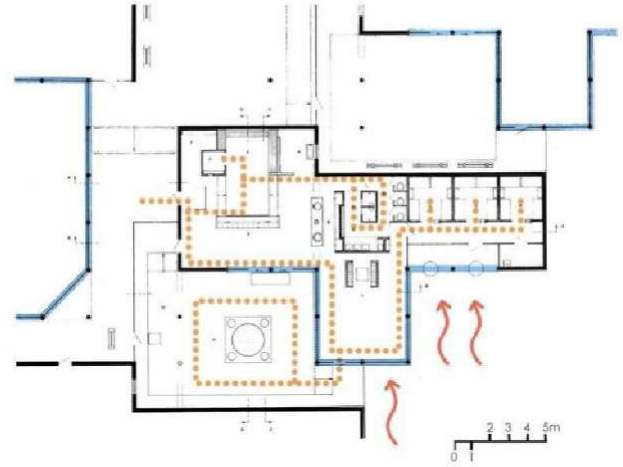
- **CLIMATE CONSIDERATIONS:**

The orphanage is located in Amsterdam Where the winters are cold and the summer is comfortable. Looking at the sun path shown in Fig 15 The southern side isgetting the maximum sun exposure and hence the staggered arrangement allows for more surface area to be exposed to the sun and the south façade is made from glass blocks, full length glass panels to allow for heat gain.

The playground also kept in the south direct



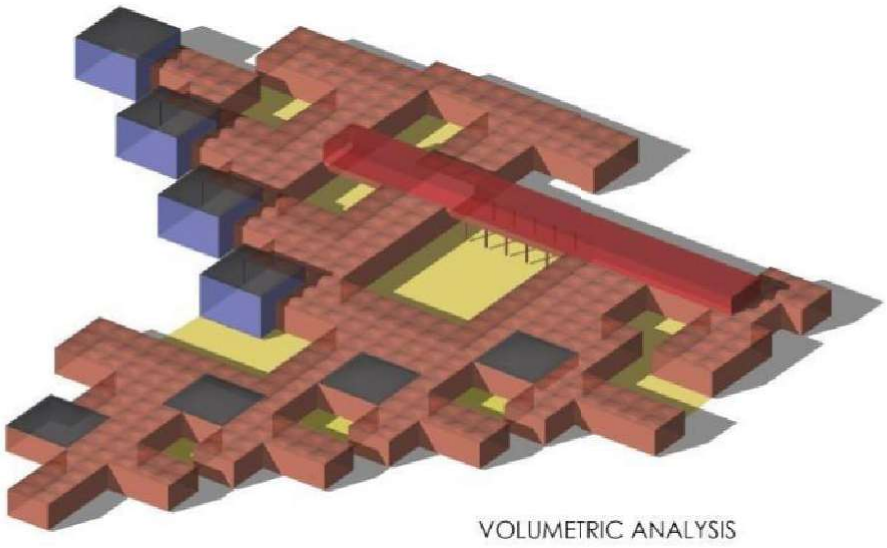
*Sun path diagram for Amsterdam orphanage **



Living unit interior circulation and heat gain

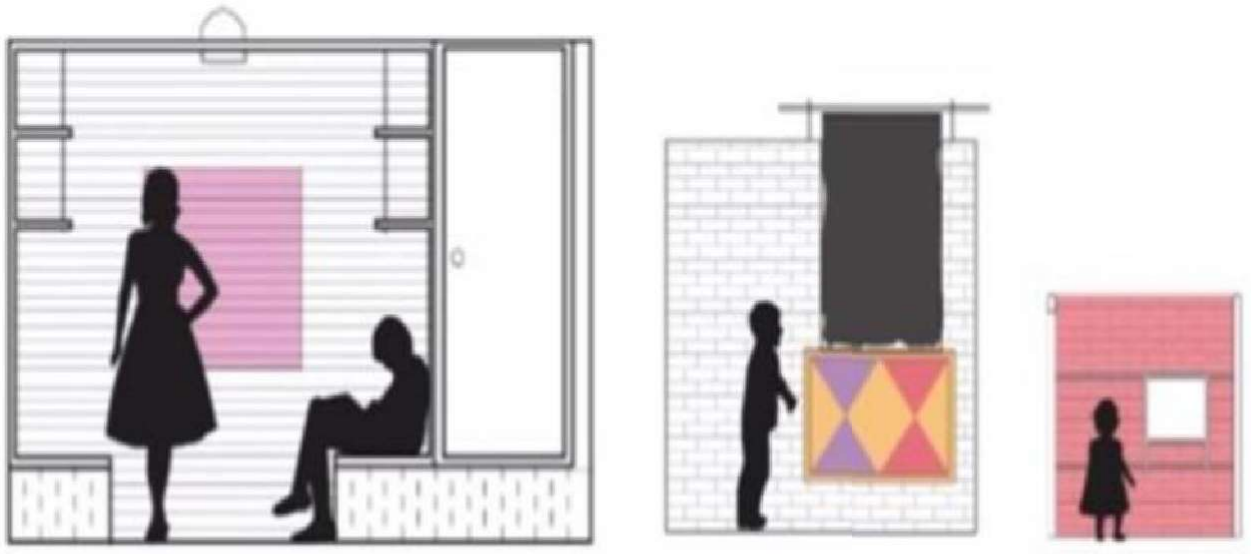
Annual temperature graph of Amsterdam

- **VOLUME:**

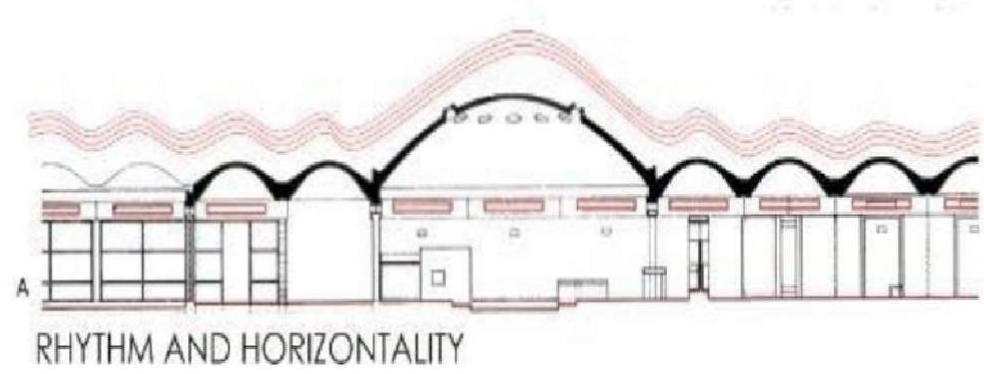


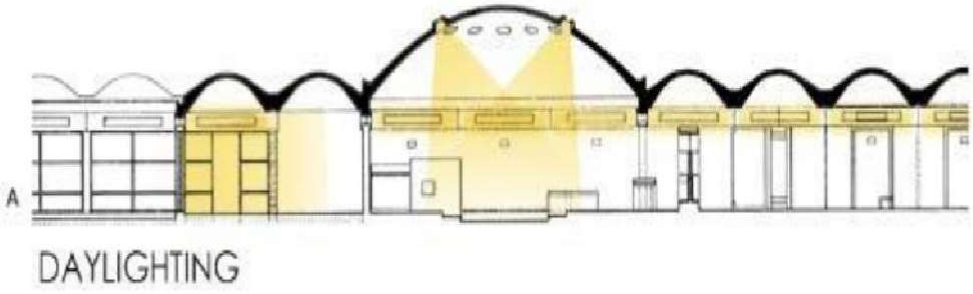
*Volumetric analysis of Amsterdam orphanage *source- Author*

The built mass has been broken up and small open spaces have been accommodated in the form of courtyards for providing interaction spaces for children. Looking at Fig 27 all the built form highlighted in orange is single storey and hence responding to the scale of the children and further on the structure is following a strong geometrical pattern in which the whole structure has been divided into square grids smallest being a grid of 3m X 3m and is covered by a dome. Nine of these squares combine to form an activity space whose dome is punctured by circular skylights to accentuate the playfulness of the space. The living areas have been designed keeping children's scale in mind and volume kept in accordance with the age group of the children.



Living spaces designed according to age of the children



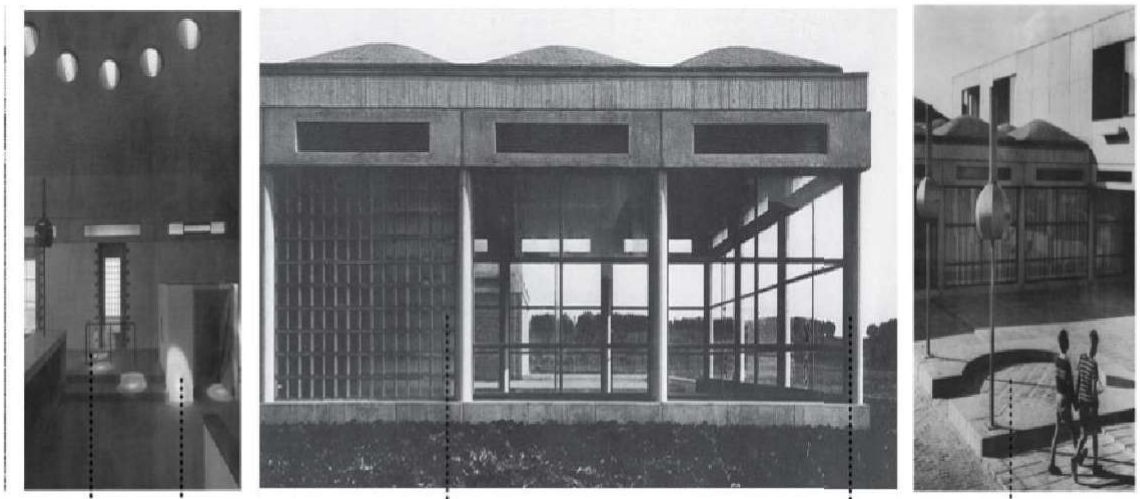


- **DESIGN FEATURES:**

View from the playground (Amsterdam orphanage)

DE AMSTERDAM AMSTERDAM ORPHANAGE

- Daylight prioritised inside thestructure.
- Walls finished with exposed brickwork and glass panels.
- The arrangement of blocks create in between spaces (small enclosures) for children
- The dome roofs of different scale give an interesting volume to spaces.
- Also the series of roofs of changing scale seen from outside give a rhythmic eye movement (Fig 29)
- Living spaces designed specifically for different age groups.
- Structures surrounding the interaction spaces kept single storey and double storey structures kept away from the interaction spaces.



Different views of the orphanage

ORPHANAGE

ORFANATO MUNICIPAL DE AMSTERDAM / AMSTERDAM

SOS VILLAGE, JORDAN

INTRODUCTION:

View of SOS village Jordan

The principles of the complex in Aqaba are those governing the SOS Villages International Programme as a whole. The concept is based on providing care for orphaned children via family homes rather than in large, impersonal orphanage institutions.

17

The complex comprises eight family houses, a staff house, an administration building, a guest house and the village director's residence; all are planned around a village square and connected via pedestrian paths, gardens and alleyways. Vaulted archways lead to shaded courts, while gardens surround the buildings both within and on the edge of the village. On the southern border of the site, close to the main road, are located facilities that are shared with the local community, namely a kindergarten, a supermarket, a pharmacy and a sports hall.

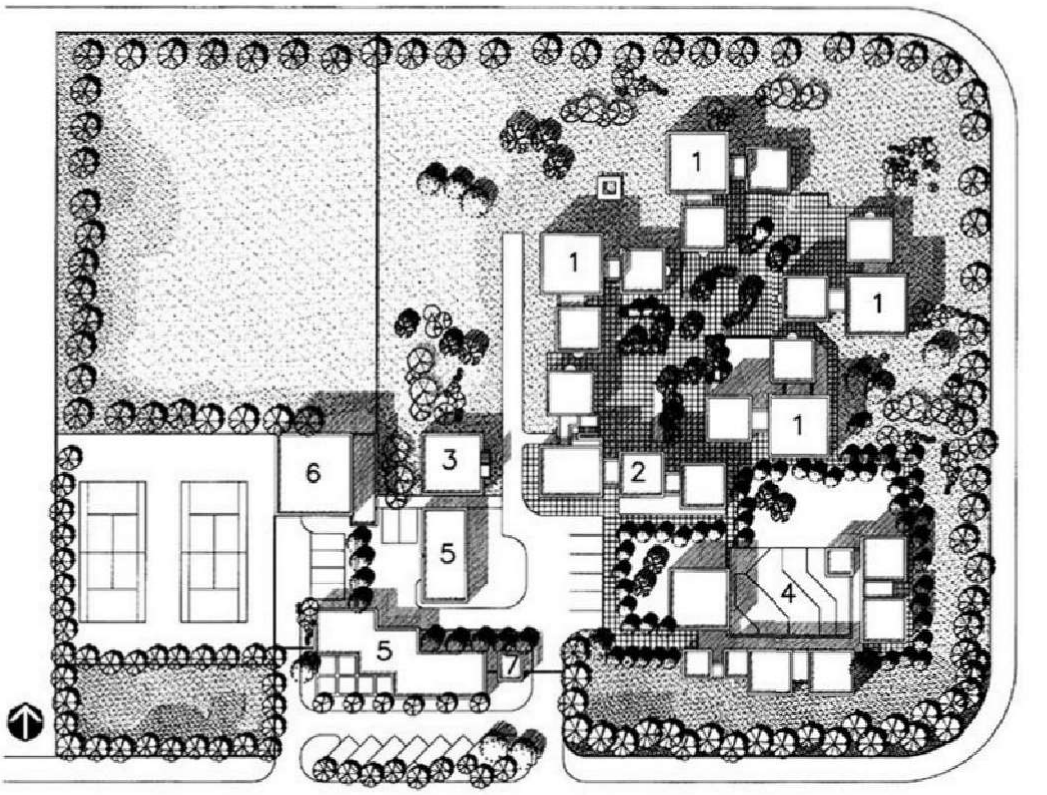
17

Info graphic showing linkage of the village with the nearby community

- **LOCATION:**

This SOS complex for orphaned children is located in the residential outskirts of the city of Aqaba, on the Red Sea. A prerequisite of SOS Villages International is that they should be built within an existing social environment, so that they are not isolated from the urban context of the town or city they are in. This was the second such village to be constructed in Jordan; the first was in the capital, Amman, and a third, in Irbid, was completed in 2000.

- **DIVISION OF SPACES:**



SITE PLAN

0 5 10 15

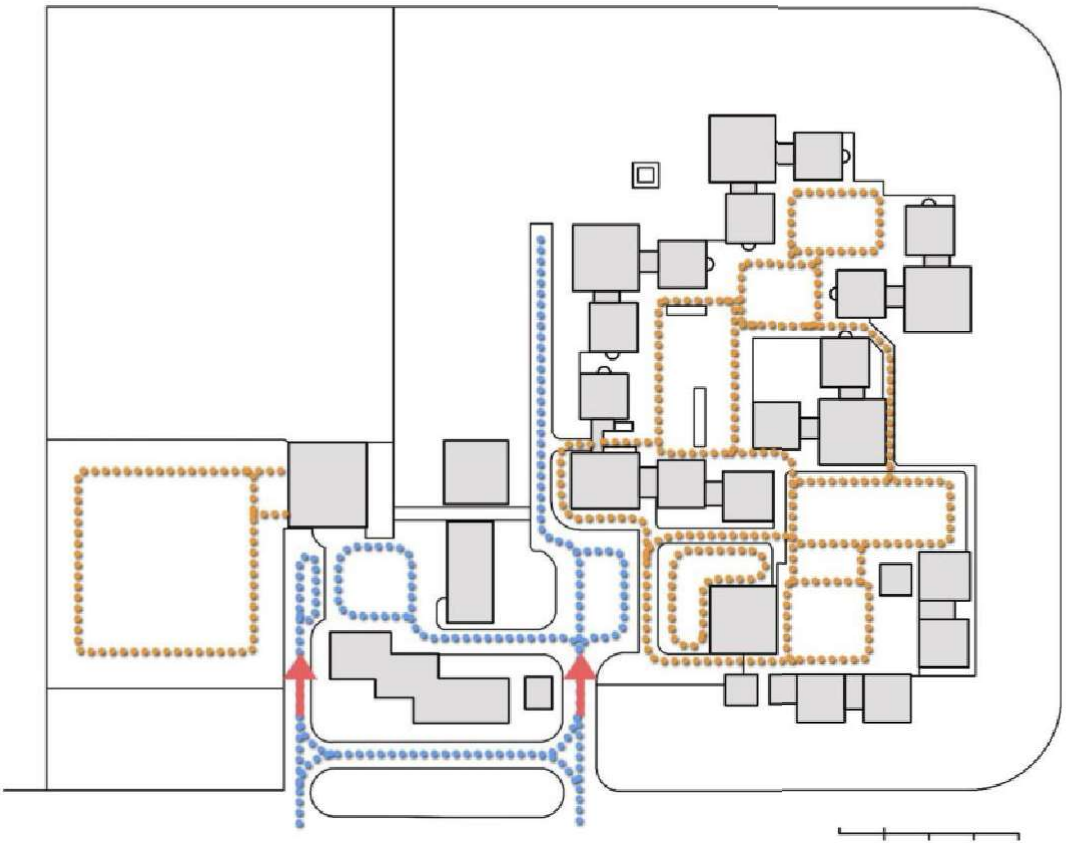
1– TYPICAL FAMILY HOUSE
2– ADMINISTRATION GUEST & DIRECTOR'S HOUSE
3– STAFF HOUSE
4– KINDERGARTEN
5– SERVICE BUILDING
6– SPORTS HALL
7– GATE HOUSE

Site plan: SOS village Jordan

The spaces have been zoned such that the spaces used by the community are there in the south side of the side and the west part. The children's village has been accommodated in the north side giving an exclusive space for the children. The residential area forms an enclosure for the children to play and feel secure. The

residential area also opens up into the surrounding green spaces. An oblique approach has been provided into the village so as not to give away the private space of the children to passing by people.

- **CIRCULATION PATTERN:**



Circulation pattern of the village: blue lines showing vehicular circulation and orange showing pedestrian. -

**source -Author*

The vehicular and pedestrian areas have been clearly segregated and the area enclosed by the residential area has no prescribed pathway, rather a large paved area where the movement is implied by the shade of the surrounding buildings. The arrangement of the structures is such that it divides the space into smaller enclosures giving some

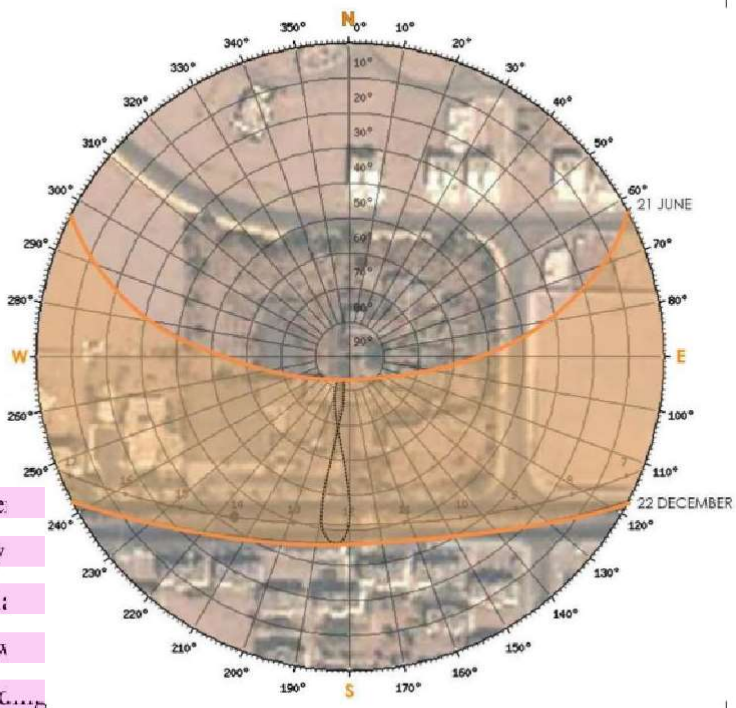
variety of interaction spaces to the children.

The circulation is following an orthogonal pattern as suggested by the structures around them.

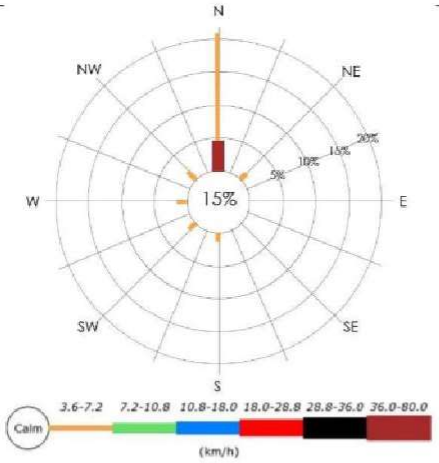
CLIMATIC CONSIDERATION:

Jordan is region with very harsh summer so reducing heat gain, providing shade in open spaces and having the wind penetrate for a cooling effect was necessary.

Outdoors in the shaded courts, whe continuous breeze is encouraged by greenery and trees in the vill: Natural lighting is somew jeopardized by the degree of shac... required inside the houses for climatic comfort. The buildings in the village are all designed to resist seismic activity, and uses fireproof materials.

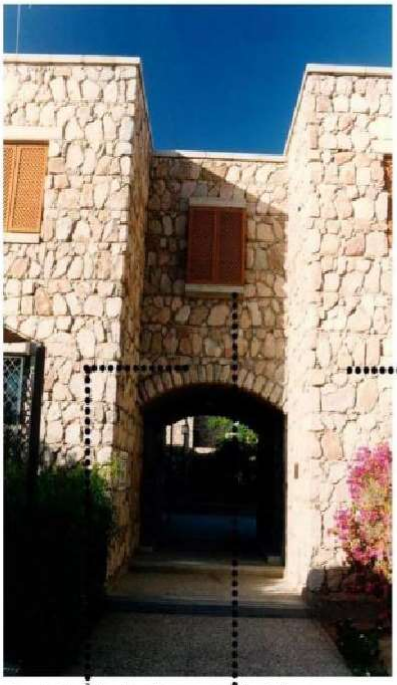


Sun path diagram for city of Aqaba overlaid on the SOS village



Wind rose for Aqaba

Annual temperature graph of Aqaba

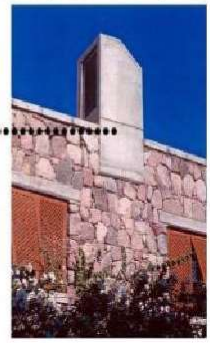


Shaded arched walkways, Mashrabiya

Granite boulders facade

Wooden trellises shade courtyards of kindergarten

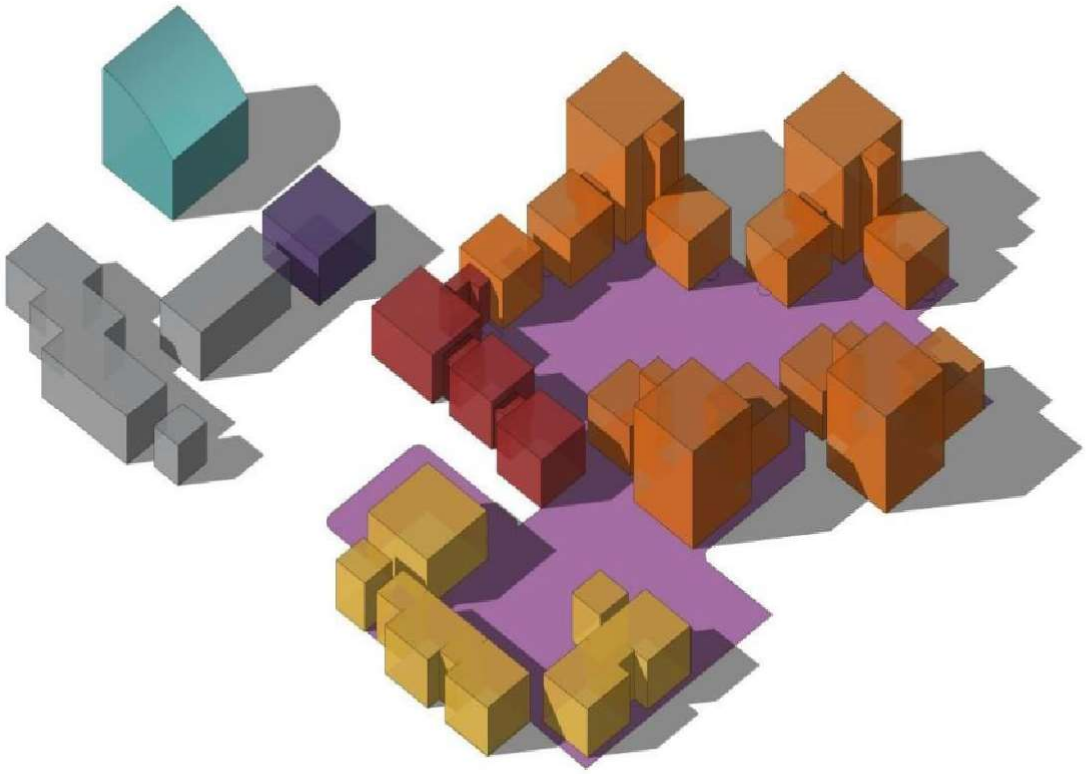
Concrete wind tower



Attached generous outdoor spaces, courts and gardens

Concrete lintel and wooden screens frame a window opening

- **VOLUME:**



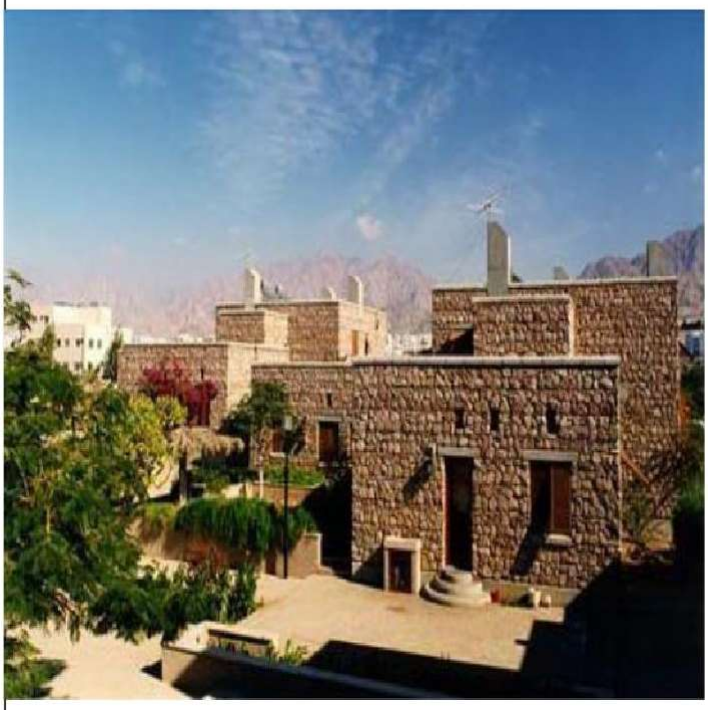
Volumetric analysis SOS village Jordan

The built mass has been broken up here to create open spaces for play and interaction. The scale of the blocks is also kept low and the built mass encases the interaction spaces creating a sense of enclosure and sense of safety. There is a generous amount of interaction spaces shown in purple in Fig 39. The perforations in the built mass open up to other open spaces for creating a variety of options for the children to choose from.

- **DESIGN FEATURES:**

Children play in the shaded patio in front of family house * *source- Aga Khan Award for architecture-SOS village Jordan*

- Use of vernacular material in response to the context and climate.
- Materials, colour and texture are in harmony with the surrounding environment.
- Arched shaded walkways capture the imagination of children.
- Interacts positively with the nearby community.
- The indoor environment kept cool during summer through passive cooling techniques.
- Generous amounts of open spaces and play areas for children



View of the village with respect to surrounding context

Shadow patterns cast by shading device

b. Illuminates too large of a surface

c. Illuminates too evenly, causes objects to look flat or 2D

B. Darkness is associated with gloom, mystery, quietness, seriousness, depression, threat, fear of the unknown, ignorance, age, sophistication, and experience

1. Expressions of

darkness include

"The dark ages"

"Don't leave me in the dark"

2. Not enough light is tiring and make the viewer work too hard to see. The older the viewer the more light is required to see as the eyes age. Hearing clearly can also be affected by the ability to see what is making the noise or who is talking.

III. PHYSICAL EFFECTS OF LIGHT

A. The quality of light, which is determined by the source, can accent, distort, subordinate, minimize, and rearrange contours of shape

- **SOUND**

Acoustics adds to the static presence of the place .Users of the space can easily experience and be a part of the architecture and design. Children are mostly the fascinated and driven the quality and type of sound .And thus creatively interact with its surroundings.

- *NOISE*
- *RESONANCE*
- *REVERBERATION*

- *ECHO*
- *VIBRATION*

- **TEXTURE**

Texture add to the physical value to the

- *ROUGH*
- *SMOOTH*

- **COLOUR**
  - *TIME*
  - *MOVEMENT*
  - *PERMANENCE*
  - *DEPTH*

- **WATER**

FEELING

- *HOT*
- *COLD*

- **SMELL**

The above mentioned factors append to the child experiences and thus influences and create a sense of division of space. Thus spaces can be transformed and translated on the above factor for the basic division as per the child perception.

- **WHAT IS BUILT ENVIRONMENT**

INFANTS AND TODDLERS NEED:

- Safe spaces to explore.
- Lots of care and supervision.
- Interesting things to do and look at.
- Sturdy furniture to hold on to and pull self-ups with.

PRE-SCHOOLERS NEED:

- Furniture, equipment and environments sized for their success.
- Open space to play.
- Safe environments that promote independence and exploration.
- Responsibility for keeping their space organized (they will need your help).
- Decision-making opportunities.

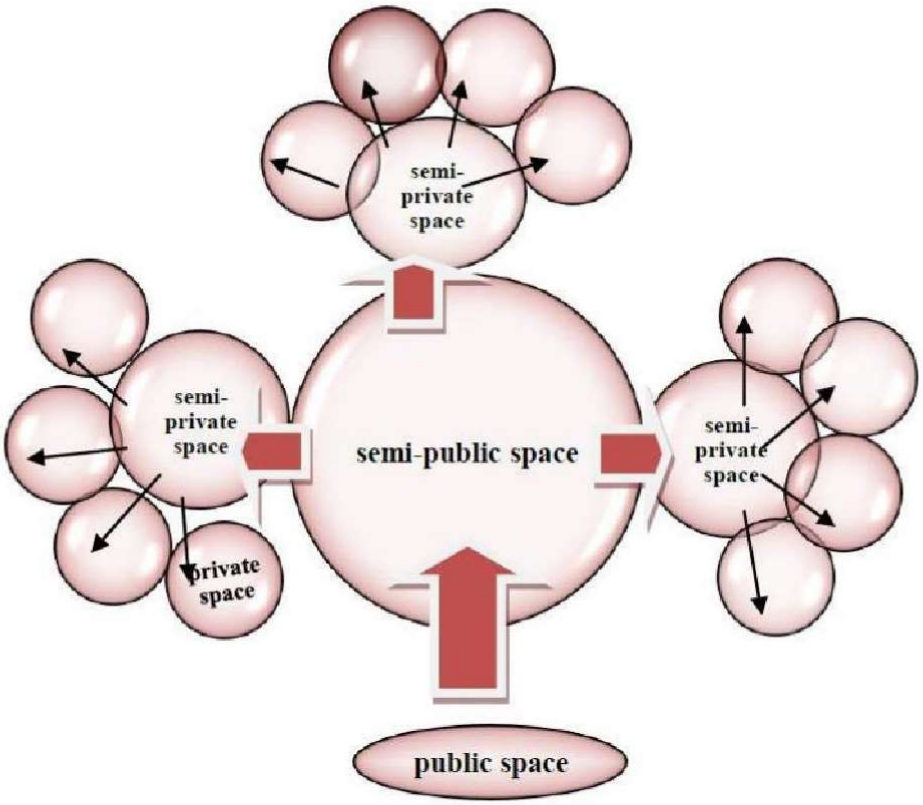
ELEMENTARY AGE CHILDREN NEED:

- Space to use study skills and complete large projects.
- Areas to display artwork.
- Storage for collections.
- Privacy.
- Dynamic changing colour preferences

15
TEENAGERS NEED:

- Privacy.
- Space to study and store school books.
- Grooming area.

- Some choice, ownership and control of their space and belongings.
- A place to be with friends.



HIERARCHY OF OPEN SPACES AS A DEFENCE MECHANISM

Defensible hierarchy of spaces

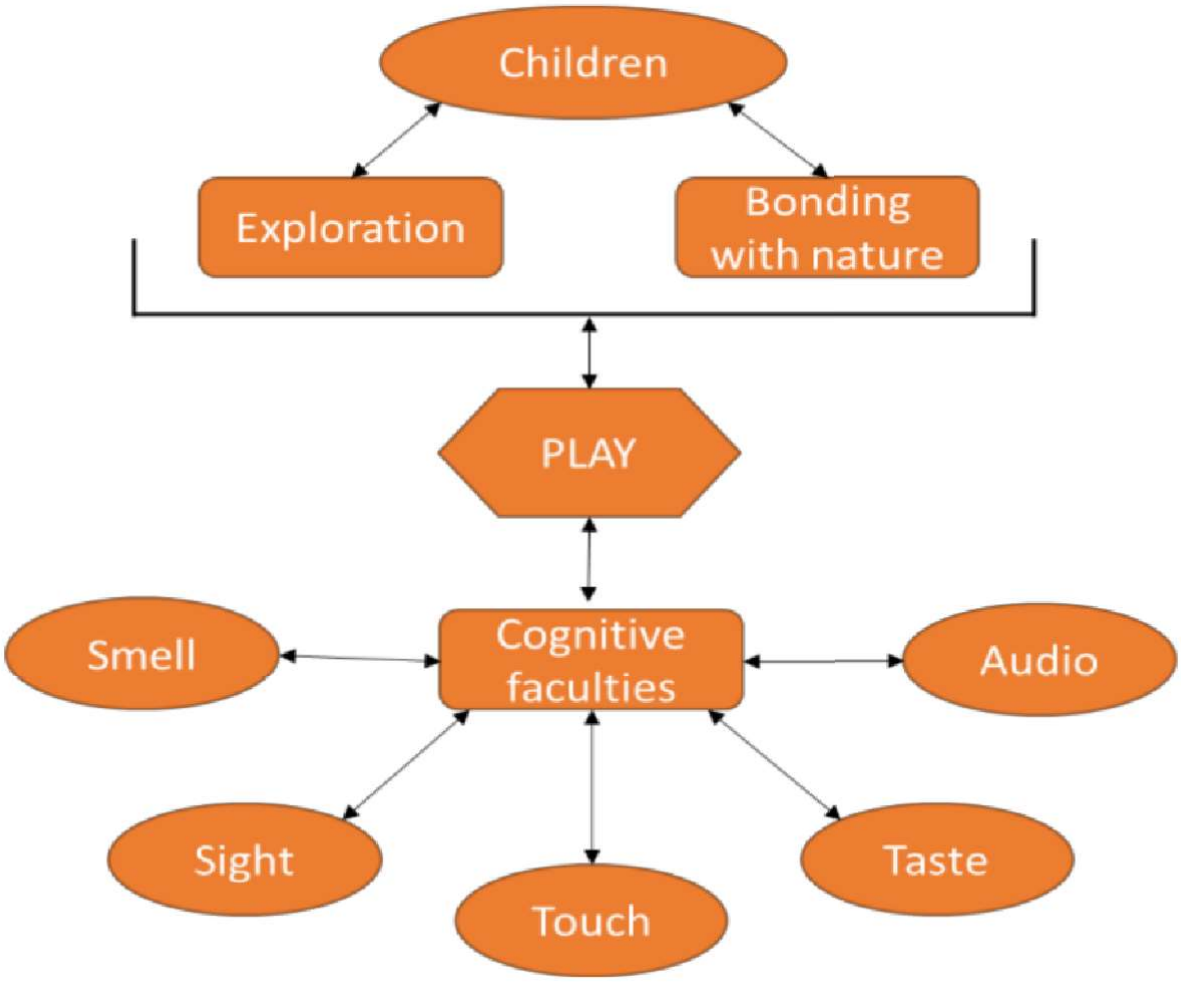
Following a certain hierarchy as shown in the figure above provides security checks and natural surveillance which makes the space defensible and safe. This type of also gives rise to different scales and characters of social spaces where children would feel safe and comfortable

in playing hence, giving the children options for different types of activities and play suited for the different options available to them.

However this hierarchy of spaces is not limited to the psychological comfort and safety of just the children community but extends to all age groups. It is a universally applicable format of hierarchy to make the any design safe through natural surveillance and security check points.

- **FUNCTIONING OF EARLY AND MIDDLE CHILDHOOD CHILDREN**

In the perspective of child development, McDevitt and Ormrod (2002) posit that early childhood is a period of incredible fantasy, wonder, and play. They learnt the world as a forum for imagination and drama that is they reinvent the world, try on new roles, and struggle to play their parts in harmony. Through sensorial and motoric activities with peers and adults the children rapidly develop their language and communication skills. Their physical movement is much influenced by the functions of the features that they get in contact including furniture and toys in the indoors (Olds, 1987), and plants and animals in the outdoors (Kellert, 2002). "Their responses to the environments are immediate and inseparable from the sources of stimulation around them" (Old, 1987, p. 117). For example, an empirical study by Said (2006) found that hospitalized children recognized the unfamiliar conditions of their ward, thus they reacted regressively. Consequently, when they played in the ward's garden, they much aware to the presence of animals such as birds and insects suggesting their cognitive functioning has improved.

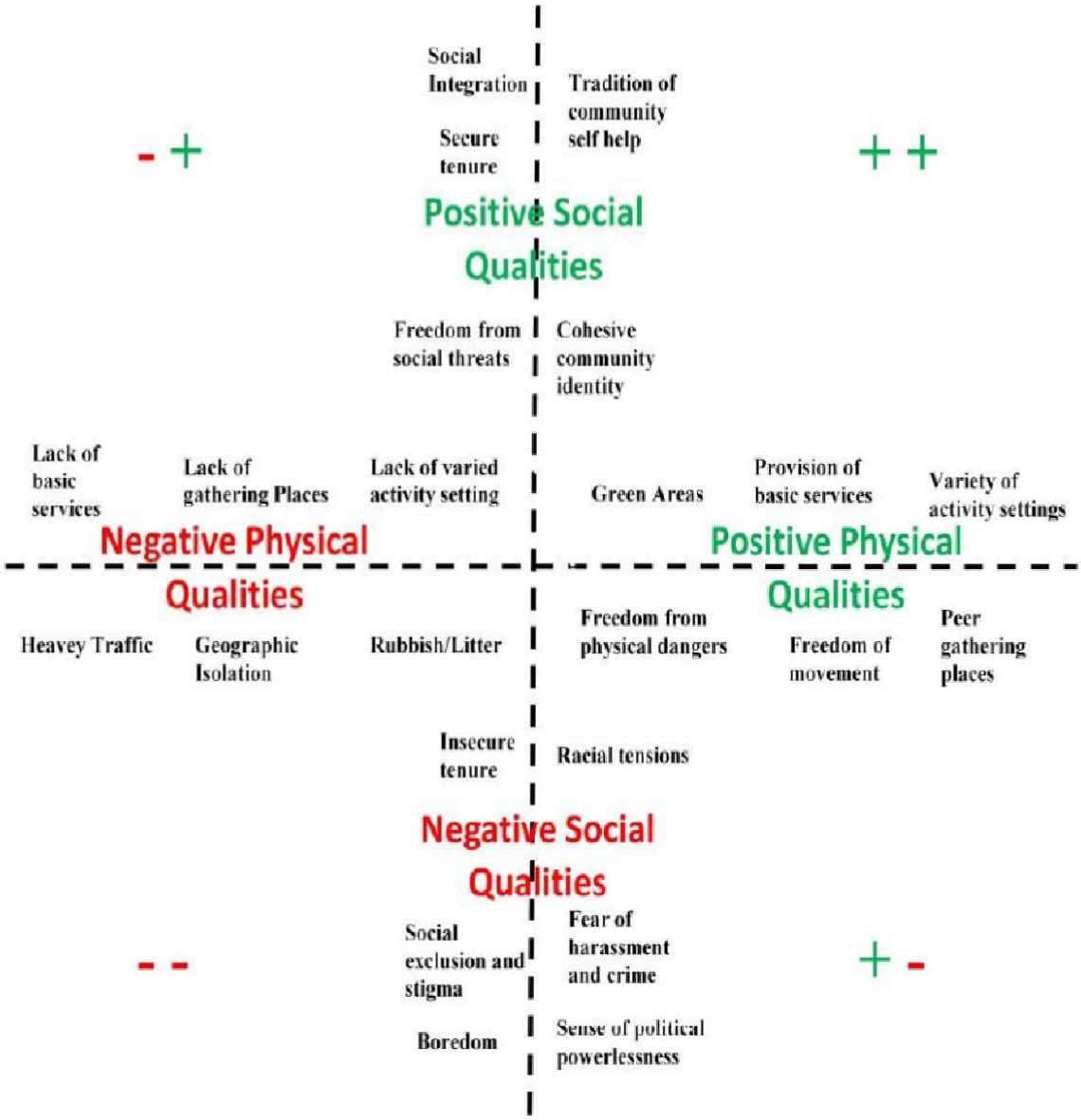


Cognitive stimulation through play

(source- author)

6

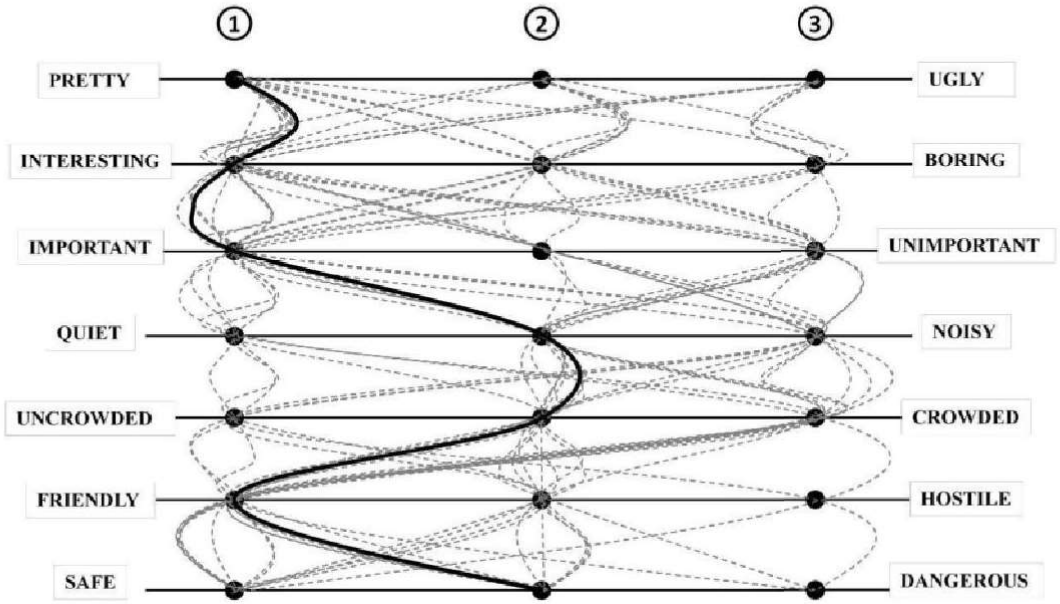
In middle childhood, children are genetically programmed for exploration of the world and bonding with nature (Cobb, 1969). That is, they learnt on how the world works in evocative way, their logical reasoning only about concrete objects that are readily observed. As such the children are active in grasping and understanding the natural world through play (Moore and Young, 1978). The play stimulates their cognitive faculties of sight, touch, taste, audio and



Indicators of social environment

These indicators are based on the evaluation of 10 to 15 year old children at Growing up in Cities. Therefore, this will serve as a preliminary framework and it will be further refined and developed to be adapted to the context

- **PERCEPTION OF PUBLIC SPACE.**



*Perception of public space *source- Hiafa A Al Arasi(2013)*

For the purpose of generally understanding the perceptions the children hold of the public spaces, the children were asked to describe the public space through a semantic differential scale when the one on one interviews were conducted. A semantic differential is a scale composed of a pair of contrasting adjectives which is used to measure attitudes towards certain concept as these concepts can have different meaning to different people (Lewis-Beck et al., 2003). Figure illustrates this scale with 7 pairs of adjectives that were given to describe the city centre; it shows the frequency of responses (illustrated by the grey dotted curves) with

F. **Problems on Creative expression**

G. **Problems on New Experience**

H. **Problems in dealing with others**

I. **Problems on Achievement**

J. **Problems in Isolation**

K. **Financial problems**

L. **Problems in dealing with the opposite sex**

M. **Problems in dealing with Authorities**

N. **Problems in relation with Anxiety**

O. **Problems in relation with Emotional Maturity**

- **METHODS TO COUNTERACT PSYCHOLOGICAL ISSUES**

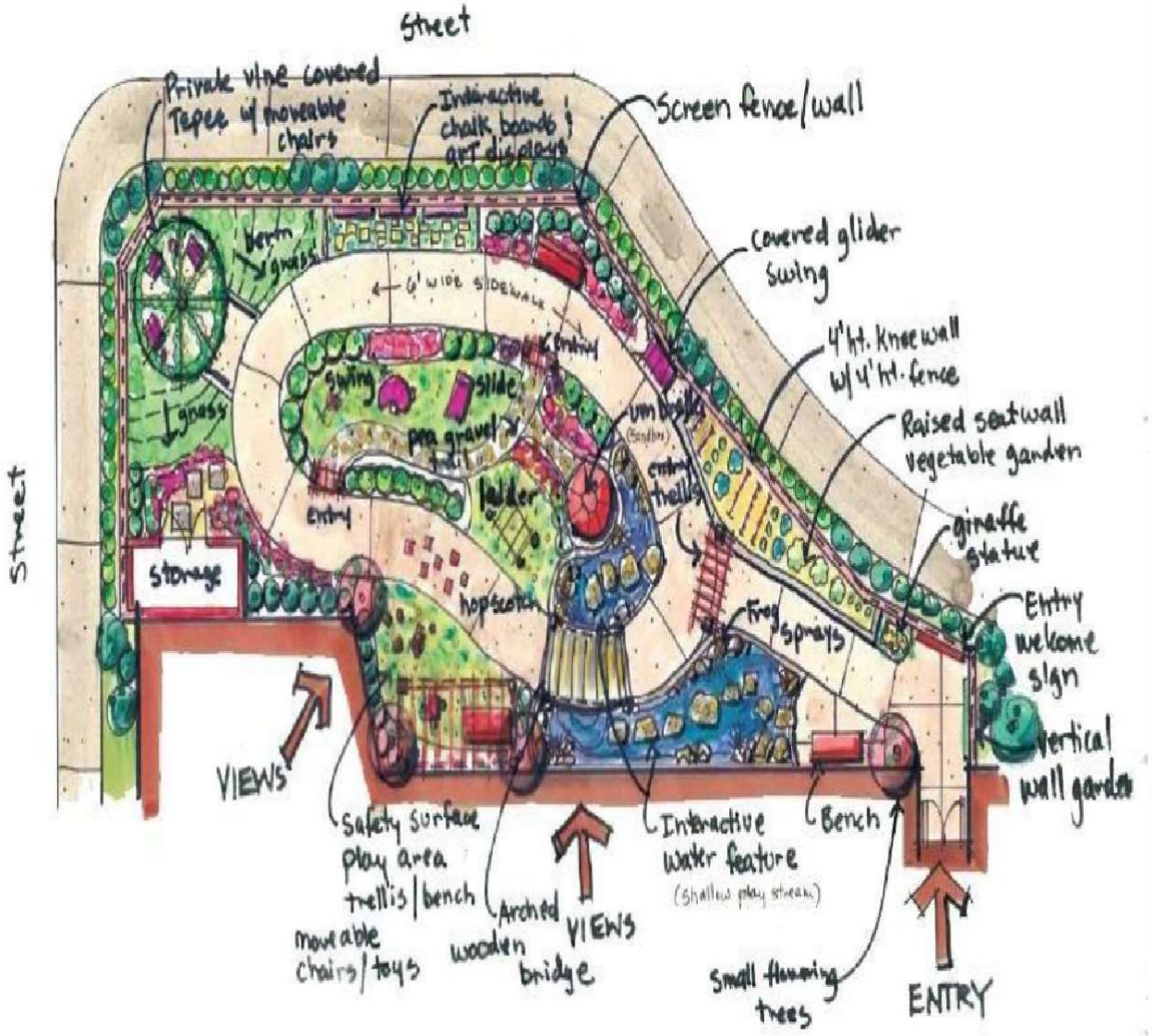
- **HEALING GARDENS FOR CHILDREN**

Aim here is to create points of interests to make space dynamic, create a sense of adventure for the children while roaming in the garden, through the following elements:

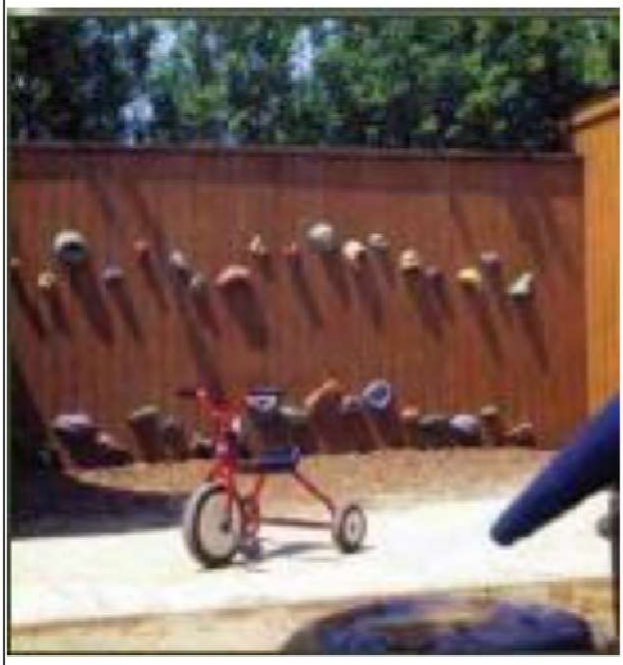
22

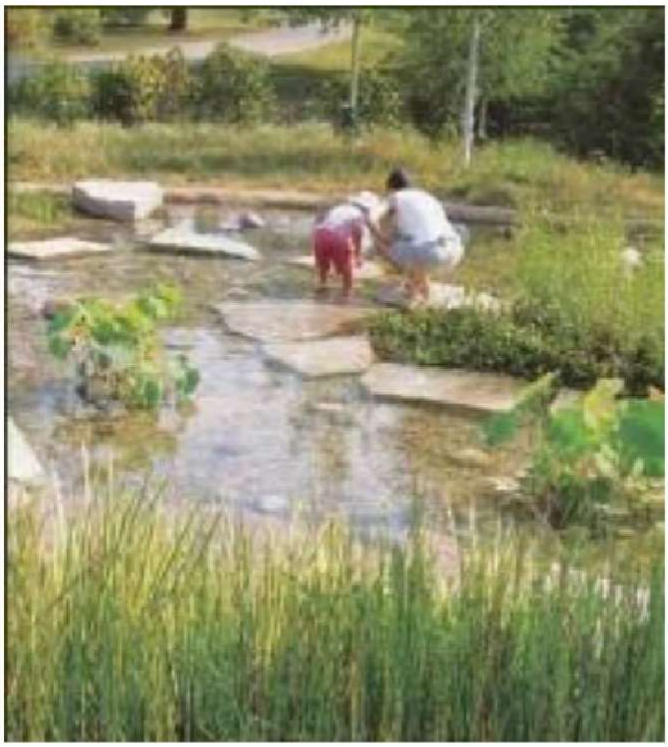
- Child friendly entry
- Provide different spaces for pre-adolescent/adolescent groups if possible
- Outside telephone
- Comfortable space for staff and parents
- Many options as possible for children to interact with nature through their senses and or hands-on activities
- Plant a garden and harvest
- Universal Accessibility
- Multi-purpose setting for activities, social gatherings

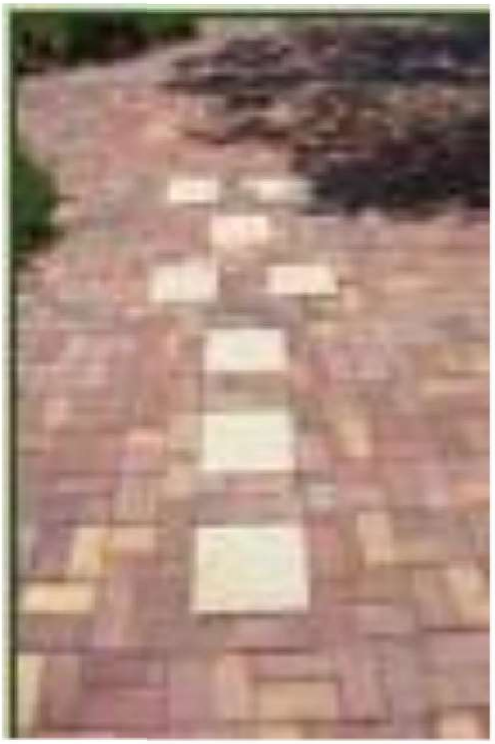
- Shade
- Provide plants and trees that drop leaves and twigs - Seeds and stones
- Add a hill
- Storage, potting shed for HT/RT
- Fun signage



Source-Basham & Lucas Design Group







• COLOUR THERAPY

Colours that work for one person need not necessarily be as effective for another person. In addition, it is believed that overexposure to certain colours can lead to side effects. Colour Theory is a topic that could easily fill a semesters study. In fact, truth told, one could study colour for a lifetime and constantly discover new things. Obviously we don't have that much time. The following outline will at times disagree with your textbook and while I don't know Mr. Gillette's exact background in regards to colour, I do know that the information in this hand-out represents my fifteen years of extensive study of colour, colour theory, and its uses with the last six years concentrated on the theatre. By understanding the principles of colour and colour theory we can manipulate it's illusions to suit our purposes.

Colour is both an external occurrence and an internal sensation of three basic dimensions – hues and their relative values and intensities.

- Evil
- Intelligence
- Thinning / Slimming
- Death Or Mourning

GREY -

- Neutral
- Timeless
- Practical

RED- This color helps to loosen stiffness and restraints. It stimulates the release of adrenalin in the bloodstream and causes hemoglobin to multiply. Hence, it results in greater strength and energy. Red can also make you feel warmer, reducing pain that comes from the cold. It also helps for people who are feeling lethargic or depressed.

- Love
- Romance
- Gentle
- Warmth
- Comfort
- Energy
- Excitement
- Intensity
- Life

ORANGE-Like red, orange is also an energizing color. Used in moderation, it has a gentle warming effect. It helps to lift the spirits of people who are depressed, lonely, who feel hemmed in or who feel that their lives lack direction. However, too much orange can lead to agitation and restlessness like the color red.

- Happy
- Energetic
- Excitement
- Enthusiasm
- Warmth
- Wealth Prosperity
- Sophistication
- Change
- Stimulation

YELLOW- Yellow stimulates the intellect and has a generally cheering effect. It has been found to be useful in facilitating the digestive process and in curing skin problems. However, like red and orange, it is not recommended for people experiencing great stress. Overstimulation could result in exhaustion and depression.

- Happiness
- Laughter
- Cheery
- Warmth
- Optimism
- Hunger
- Intensity
- Attention-Getting

GREEN- Green represents harmony, balance and hope it helps in calming the nerves of anxious children, it helps generate optimism. However a person tends to become complacent as he does not feel a sense of challenge or a need to strive towards any goal.

- Natural
- Cool
- Growth
- Money
- Health
- Envy
- Tranquility
- Harmony
- Calmness
- Fertility

BLUE- Blue is the color of truth, nobility and serenity. It has a cooling, soothing and calming effect. It helps for people who are feeling frightened or flustered. Meditating on the color blue before one sleeps helps to ward off nightmares. However, blue can be calming to the point of having a sedative effect. It can make a person passive and easily led or taken advantage of. An overdose of blue can make you feel cold, sad and depressed.

- Calmness
- Serenity
- Cold
- Wisdom
- Loyalty
- Truth

- Focused

INDIGO-Indigo stimulates the intellect. It gives a person a sense of courage, authority and inner calmness. The color indigo is associated with the mysterious and the profound.

- Royalty
- Wealth
- Sophistication
- Wisdom
- Exotic
- Spiritual
- Prosperity
- Respect
- Mystery

VIOLET- Violet is a very powerful color and has strong links with creativity. It is said that Leonardo da Vinci meditated upon it and that Beethoven had violet curtains. Those drawn to this color are often shy. It is useful in treating people who are excessively emotionally agitated.

BROWN-

- Reliability
- Stability
- Friendship
- Warmth
- Comfort
- Security
- Natural

- Organic

PINK-

- Romance
- Love
- Gentle
- Calming
- Agitation

- **ARCHITECTURE INTERVENTIONS**

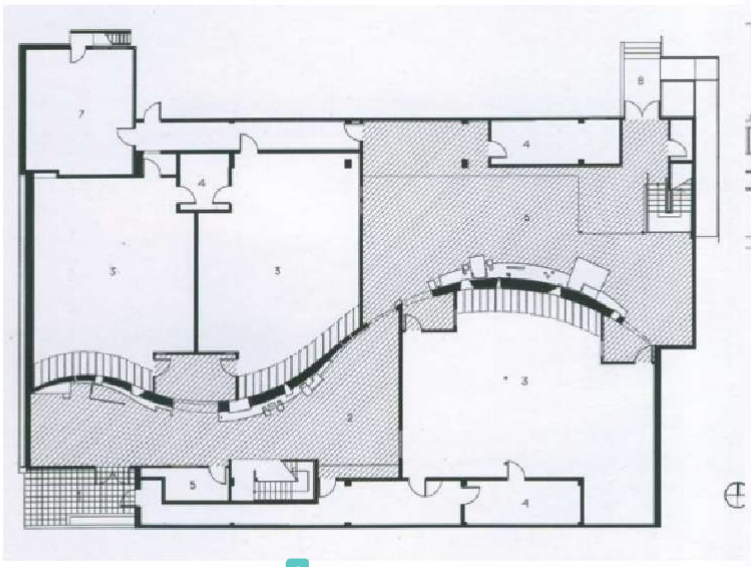
Architecture plays an important role in the life of a human especially in a child's life. Children's space should reflect a safe, happy environment which will intrigue their imagination and creativity and with this the child will be able to have a healthier childhood.

The most important needs of a child within the space are the following:

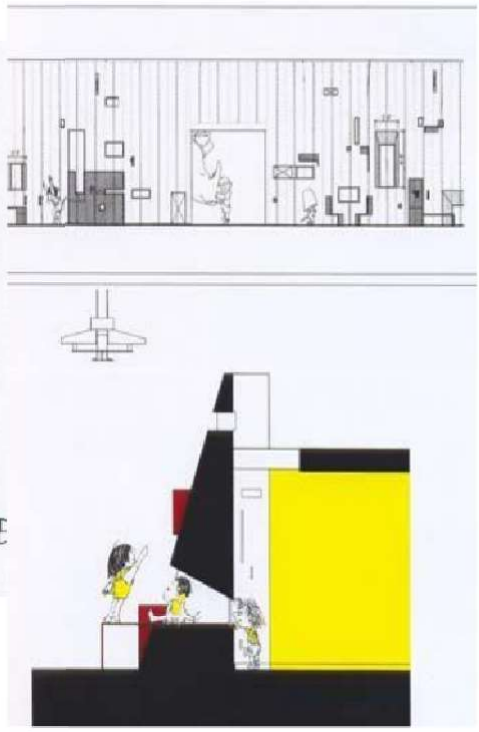
• The need to feel safe, secure and superior in the space.

• The need to be active-mentally and physically, and to be surrounded by various devices which will provoke creativity.

• The need to achieve an emotional relationship with the space-to be close to it and to identify itself with it, as well as to find its own place for being

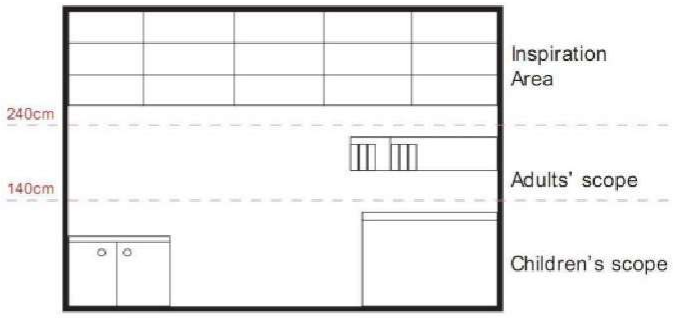


Wavy wall line and new structures on it as dividing element in spaces for children and simultaneously a gathering place



The Little School in San Francisco, Mark Horton

According to Danica, (2008) Attachment to a certain architectural space, identification with it, and possibility of regulating privacy and recovering of environment results in appearance of favourite place phenomenon. A place with such attributes has the role of regulating the relation between personal and emotional in a person, after some sudden and conflict situation.



Vertical realms (Danica 2008)3

Furniture systems

*Source- Queen Silvia Children's Hospital.

Table design with moveable, cool colour tiles help in cognitive development

***Source- Queen Silvia Children's Hospital.**

Closet cum stools with vibrant colors (Queen Silvia Children's hospital)

These closets with characters are child-welcome. Children could see the material's blur colour and shape through the matt plastic boards. It triggered children to observe and explore, which was the start point of creativity. Moreover, different ways of opening offered children challenges accomplished easily and got the sense of self-confidence. These closets were built in different forms and be hanged on the wall as a displaying area. They could be closet, stool and shelf in different forms.

- **PSYCHOLOGICAL EFFECT OF LINE, SPACE, SHAPE, AND FORM**

I. LINE

a Definition

An extension of a point, elongated mark, connection between two points, the effect of the edge of an object

introducing lines that subdivide, rearrange, push, pull, and otherwise manipulate

5. A line drawn around some space creates shape and a shape is simply enclosed space thus, space, line, and Shape are inseparable

b Descriptive terms for space/shape relationships

1. Inside space is a shape, figure, foreground, positive, internal space

2. Outside space is ground, background, negative, external, interstitial space is between unconnected shapes

3. Empty space can be open, unbroken, plain, blank

4. Filled space can be closed, broken

c Six cues that control visual perception of spatial effects

1. Size of spatial divisions
2. Overlapping
3. Closeness of shapes
4. Density of spatial divisions
5. Convectively and concavity
6. Character of enclosing lines

d Advancing or flattening cues

The cues that make enclosed space (shape) appear solid are advancing cues. These cues expand, create depth, and increase the apparent distance between foreground and background.

a. If sizes of shapes differ from each other and from the surrounding space the shape will be perceived as a solid on a background.

b. Overlapping spaces/shapes distinguish foreground From background

c. Closeness of shapes that are not touching cause them to be seen as in front of a background and isolated, not touching, floating

d. Density of space/shape filled w/texture pattern is perceived as solid

e. Convectively or convex curves enclosing lines are perceived as shape, protrusion, pushing out, bumps

f. Line character that is thick and sharp make the enclosed space seem more solid, and dense, or further from the background.

g Effects of Space

h Spatial Effects

1. The designer incorporates spatial effects both structurally and decoratively.

   a. Structural techniques control the distance between structural lines. Space can be either structurally open or closed.

   b. Decorative techniques control distance between motifs, decorative construction details, or applied trims make shapes either decoratively open or closed.

c. Designers can create scenery and costumes or fill the stage with light that is

1. Structurally and decoratively open
2. Structurally and decoratively closed
3. Structurally open but decoratively closed
4. Structurally closed but decoratively open

i *Physical Effects*

a. Divisions into long narrow vertical spaces will heighten, lengthen, slim

b. Divisions into horizontal sections will shorten and widen

j *Psychological Effects*

c. Unbroken space is dramatic, sophisticated, bold, serene, calm, confident, certain, open, simple, Straightforward like the little black dress or a Rothko painting

b. Somewhat (not extremely) unequally divided space is intriguing

c. Large broken space is closed-in, busy, complex, tight

d. Small, broken space is dainty, delicate, feminine, intriguing

.

III. SHAPE AND FORM

A line completely surrounding space creates something that a line dividing space does not which in turn creates potential effects that nothing else can

According to the online archives of California state university Stanislaus, every shape has a psychological impact on children as well as adults. Therefore the major shapes and their psychological impact on

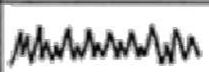
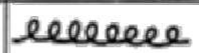
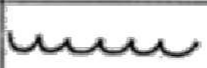
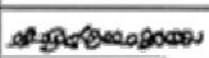
ASPECT	VARIATION	APPEARANCE	PHYSICAL EFFECTS	PSYCHOLOGICAL EFFECTS
PATH	Straight		Emphasizes angularity, counters rotundity, roundness; curves, rarely found in nature	Stiff, direct, rigid, precise, dignified, tense, unyielding, sure, masculine, austere
	Restrained curve		Slightly emphasizes curves	Soft, gentle, flexible but controlled, graceful, feminine, flowing, passive, subtle, loose; Generally more graceful if slightly irregular, not a geometrically perfect arc
	Full curve		Emphasizes curves, counters thinness and angularity	Dynamic, feminine, unrestrained, exuberant, youthful, active, forceful, unstable
	Bent		Combines straight and curved effects	This and the restrained curve are the lines most often found in nature: rivers, trees, hills. Can be both forceful and gentle, depending how used.
	Jagged		Emphasizes angularity	Abrupt, nervous, jerky, busy, unstable, erratic, spasmodic, excited
	Looped		Emphasizes roundness	Swirling, active, soft, feminine, busy, springy, unsure
	Wavy		Emphasized roundness, counters angularity	Feminine, undulating, soft, flowing, graceful, sensuous, flexible, uncertain
	Scalloped		Repeats roundness, counters angularity	Curves provide softness and femininity, sharp points provide crispness and liveliness, youth
	Zigzag		Emphasizes angularity, counters roundness	Sharp, busy, regular, masculine, jerky, abrupt, intense, stiff
	Crimped		Rough contour	Involved, complex, rough
Thickness	Thick		Adds weight	Forceful, aggressive, assertive, sure, masculine
	Thin		Minimizes weight	Delicate, dainty, feminine, passive, gentle, calm, subtle
Evenness	Uneven		Accents Bulges	Wobbly, unsure, unsteady, insecure, questioning
	Even		Smooth, reinforces smooth lines, emphasizes bumps and bulges	Consistent, definite, sure, flowing, firm, certain, elegant, smooth, A solid even line makes a direct statement of its path

Table showing interpretation of different lines

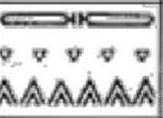
ASPECT	VARIATION	APPEARANCE	PHYSICAL EFFECTS	PSYCHOLOGICAL EFFECTS
Continuity	Continuous, unbroken		Smooth, reinforces smooth lines, emphasizes bumps and bulges	Consistent, definite, sure, flowing, firm, certain, elegant, smooth
	Broken		May emphasize irregularities	Less Certain, Staccato, interrupted, casual, sporty, playful
	Dotted		May be spotty, carried	Also less certain, staccato, interrupted, playful, suggestive, casual
	Combinations		Varied	Innumerable combinations of solid and broken lines and dots are possible, and they will ten to convey a busy, "broken" effect. Many combinations can provide a casual crispness
Edge/Sharpness	Sharp		Emphasizes area as smooth or bumpy	Definite, precise, certain, assertive incisive, sure, hard
	Fuzzy		Gently increases area size, softens	Soft, uncertain, indefinite, suggestive
Edge/contour	Smooth		Reinforces smoothness or accents bumps	Suave, smooth, simple straightforward, sure
	Shaped		Varied according to kind of shape	Complex involved, busy, active, devious, intriguing, informal
Consistency	Solid, closed, smooth		Advances boldly	Smooth, sure, assertive, strong
	Porous		Advances little, may recede	Open, delicate, weak, less certain
Length	Long		Emphasizes it direction, elongates, smoothes	Length of line is usually perceived in relation to other lines or an area. A long line for one object may be a short line for another. Suggests continuity, smooth, graceful flow.
	Short		Breaks up spaces increases busyness	A line perceived as short in relation to others tends to give a more staccato, abrupt effect
Direction	Vertical		Lengthens, narrows	Dignity, strength, austerity, stability, rigidity, grandeur, aloofness, poise
	Horizontal		Shortens, widens	Quietness, repose, rest, calmness, passivity, serenity
	Diagonal		Closer to vertical: lengthens Close to horizontal: widens 45°: Effects more dependence on influence of surrounding lines	Drama, restlessness, instability, activity, Interesting, off-balance

Table showing interpretation of different lines

- **TEXTURE AND PATTERN**

I. Texture

Texture appeals to the sense of touch, sight and hearing and thus the function of texture in an overall design is key. Since all surfaces have a texture ranging from smooth to rough, texture is both an integral part of any design and cannot be left out or not considered.

- There are three dimensions of texture Tactile quality of surface
  Tactile quality of manipulated three-dimensional substance visual quality of surface and substance

- Determinants of texture depend on the medium

1. Metal
   a. Sources – Iron, aluminium, nickel, zinc, nickel, copper, brass, etc.
   b. Form – bar, sheet, wire, extrusion, tube
   c. Finish – polished, rusted, weathered, painted, raw, die cut

2. Stone
   a. Sources – limestone, granite, marble, sandstone, fieldstone, etc.
   b. Form –
   c. Finish – natural, polished, weathered

- Psychological Effects

Texture of the surfaces in a painting, a room, a set, and costumes can change the mood conveyed to the view. The same structural design in three different textures can convey three different psychological moods. Moods can be as varied as dignified, soothing, lively, business- like, sophisticated, seasonal, etc.

RE-2022-30856-plag-report

ORIGINALITY REPORT

9%	8%	1%	2%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	colibriservices.net Internet Source	2%
2	documents.mx Internet Source	1%
3	webapps.itc.utwente.nl Internet Source	1%
4	facta.junis.ni.ac.rs Internet Source	1%
5	www.uh.edu Internet Source	1%
6	www.fab.utm.my Internet Source	1%
7	Submitted to Higher Education Commission Pakistan Student Paper	1%
8	www.indiaparenting.com Internet Source	<1%
9	www.slideshare.net Internet Source	<1%

10	0354-4605, 2008 Publication	<1 %
11	Submitted to Lovely Professional University Student Paper	<1 %
12	www.cehn.org Internet Source	<1 %
13	academicjournals.org Internet Source	<1 %
14	doczz.net Internet Source	<1 %
15	www.ext.colostate.edu Internet Source	<1 %
16	1library.net Internet Source	<1 %
17	www.scribd.com Internet Source	<1 %
18	Submitted to Alhosn University Student Paper	<1 %
19	www.gradesfixer.com Internet Source	<1 %
20	gupea.ub.gu.se Internet Source	<1 %
21	www.ronpriceepoch.com Internet Source	<1 %

22	www.gardensthatheal.com Internet Source	<1%
23	www.answers.com Internet Source	<1%
24	Submitted to Bolton Institute of Higher Education Student Paper	<1%
25	www.trainersbox.net Internet Source	<1%
26	mercyprojects.org Internet Source	<1%
27	www.nitte.edu.in Internet Source	<1%
28	fashionelongation.com Internet Source	<1%
29	Ann Forsyth. "Does Residential Density Increase Walking and Other Physical Activity?", Urban Studies, 4/2007 Publication	<1%
30	www.archdaily.com Internet Source	<1%
31	Submitted to Plymouth College of Art and Design, Devon Student Paper	<1%
	archive.org	

32	Internet Source	<1%
33	www.coursehero.com Internet Source	<1%
34	hdl.handle.net Internet Source	<1%
35	Submitted to Guardiano del Faro Student Paper	<1%
36	www.childtrafficking.com Internet Source	<1%
37	courses.lumenlearning.com Internet Source	<1%
38	www.ncbi.nlm.nih.gov Internet Source	<1%

Exclude quotes	On	Exclude matches	Off
Exclude bibliography	On		