

Contribution of Architecture on Juvenile Rehabilitation Process in Sri Lanka

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Abstract— The process of reintegrating juveniles to society from juvenile rehabilitation facilities is as important as the process of rehabilitation. If the rehabilitation process is not conducted properly it would rather be difficult to control the reconvicted/recidivism rates. Hence, the rehabilitation methods must adhere to certain attributes relating to the rehabilitation process, one key aspect being the built environment of the rehabilitation facilities. Humans by nature have an undeniable connection with their environment through physical, mental, emotional and spiritual means. This connection helps to keep a balance within ourselves. Most of the time, unlike adults, juveniles commit crimes or become victims without their own will. It is of paramount importance that this is understood and they are attended with the required special attention in the rehabilitation process. At the stage of admission to the rehabilitation facilities, these youngsters are more likely to be in a very weak state of mind, with the need of protection, self-value, freedom, and to obtain the sense of belongingness in the society as they are reintroduced. This requires improvement of interpersonal and intrapersonal skills before leaving the correctional facility to avoid reconviction/recidivism. The rehabilitation process influenced by architectural attributes was followed in this research would be to understand by location and site planning, spatial organization, provision amenities, supervision and security and visual character. In the Sri Lankan context, it shows that most of the juveniles from facilities that have considered these architectural attributes show comfort when reintegrating with the society as adults whereas others from contradicting facilities show difficulties when reintegrating with the society as adults.

Keywords: *juveniles, rehabilitation, architectural attributes*

I. INTRODUCTION

A. Healing Process and built environment

Human beings have an inner connection with the environment by physical, mental, emotional and spiritual means. This connection with our environment is the key in keeping a balance within ourselves. Healing does not limit to psychology or medicine. By the definition itself, healing is the process of re-establishing harmony within the organism. In our built environment we often interact with the buildings without even realizing the great influence such built environments and surroundings hold. This great power holds influence in our lives for good or bad, happy or sad, stressed or relaxed in every physical, emotional and spiritual way. This natural state, when in check or harmonies allows our body to be in both mentally and physically healthy state. Architecture has various definitions from different points of view. It always deals with the built environment and can be described it as an art of composing meaningful spaces.

B. Juvenile rehabilitation

The term juvenile in common dialect could be defined as a child or a young person who is in age below 18. It can also be defined as a child or an adolescent between childhood and man/womanhood. (Niriella) According to the world health organization definition of the rehabilitation refers to “the combined and coordinated use of medical, social, educational and vocational measures for training the individual to a highest level of functional ability”. In Sri Lanka, there is a number of juveniles who are although under the guardianship and the custody of parents but were neglected, involving

in antisocial behaviour or becoming a prey for crimes which the relevant authorities should pay their serious attention. It should be noted that the juvenile generation is a vital social entity who will eventually grow up to take over the responsibility of the future of any country. Therefore, it is very important to build a good physical and psychological condition within them. And their education, vocation and the future programmes need to be ensured. Therefore, through the authorities, these children are admitted into juvenile rehabilitation facilities for rehabilitation.

C. Legislation and Procedures

Since 1939 Sri Lanka had has separate legislation governing the administration of juvenile justice. Children and Young Person's Ordinance (CYPO) 1939 was introduced for children age under 16. Children who are in conflict with law and children in need protection deals with following ordinance. In present situation there are several legislative enactments which currently deal with the law relating to juveniles.

The Children and Young Persons Ordinance (CYPO) No. 48 of 1939

Youthful Offenders (Training Schools) Ordinance No.28 of 1939

Probation of Offenders Ordinance No. 42 of 1944

Penal Code Act No. 2 of 1882

Code of Criminal Procedure Act No. 15 of 1979

Prison Ordinance No. 16 of 1877 (also contain some special legal provisions applicable to juvenile offenders)

However, CYPO is out of date and fails to fulfil the standards of CRC (United Nations Convention on the Rights of the Child 1989); therefore, there is a growing need of reformation of the system. The National Child Protection Authority has taken a leadership role in the process of reviewing and revising the legislation. (UNICEF, 2006)

D. Juvenile Rehabilitation Facilities in Sri Lanka

The department of Probation and Childcare Services is providing care, protection and shelter for orphaned, abandoned, destitute and abused children in Children homes in the entire country. The administration of these services has been

functioning under the Ministry of Women and Child Affairs since 2015. There are appointed commissioners in all 9 provinces covering the entire island.

According to them, they have classified children's homes as below,

Voluntary Homes

Remand homes

Certified schools

Detention homes

State Receiving homes

Approved schools

And there are some international organizations which are also providing care, protection and shelter for these children. After the court procedures, the department of probation and childcare services admit juveniles into these facilities. One of these organizations is,

SOS Children's Villages

II. OBJECTIVES

To identify the relation between rehabilitation and reintegration process and built environment

To identify the architectural attributes which effect on rehabilitation and reintegration process of juveniles

To study the architectural character in juvenile rehabilitation facilities in Sri Lanka

To identify the architectural contribution on rehabilitation and reintegration process of juveniles

III. RESEARCH METHODOLOGY

This research follows both qualitative and quantitative methods. The qualitative part will follow a literature survey done on the principles of environmental psychology and the child psychological theories related to the built environment that will enable a view on legal background of the juvenile delinquency and existing correctional methods and correctional institutes whilst also identifying the correct architectural attributes which are already applied in local and foreign examples. And the quantitative part is obtained via questionnaires. The questionnaire will be based on the theories

from the literature survey, analysing the social and psychological behaviour of the inmates. Onsite interviews will also be conducted with the children and respective guardians of the children. After choosing case studies, the correctional institutes will be inspected via visual and photographic survey. The exterior facades, special progression and other main architectural aspects such as conditions of natural light and ventilations, colours, textures will mainly be examined in the onsite survey. The measured plans and sections will also be taken into account. Afterwards there will be a comparison between the correct architectural attributions and current attributes in case studies. And finally provide a design solution with suitable examples for the correctional institutes.

IV. DATA ANALYSIS

The scheme of analysis for this study focusses on attributes which effect on rehabilitation process and the rehabilitation and reintegration of the juveniles. There are main two parts in the analysis to understand the following aspects;

Architectural attributes in the facility

Perception of the primary user on the facility

A list of architectural parameters synthesised from the literature review will be used to understand the architectural attributes in the facilities and a list of statements are synthesized to perceive the perception of the primary user on the facility. Following figure below presents the parameters synthesized from the literature review on the architectural attributes, which will be studied under the case studies through a visual survey.

Table 9. Architectural Attributes

Location and Site plan	i.	Respond to the micro context
	ii.	Respond to the macro context
Special Organization	iii.	Identification of functions
	iv.	Physical, visual connection with the outdoor

Provision of amenities	v.	Scale and shape of the spaces related to the functions
	vi.	Sports and recreational facilities
	vii.	Skill acquisition facilities
Supervision and Security	viii.	Religious facilities
	ix.	Visibility of the corridors, pathways
Visual character	x.	Number of blind spots
	xi.	Architectural language
	xii.	Colours, Textures and Materials

To check the perspective of the child about the built environment of the facility, the list of statements was listed related to the literature review.

List of statements

The facility is isolated from the community and promotes the image of punishment

The landscaping of the facility is pleasing and encourage outdoor activities

The layout of facilities and circulation system encourage active participation

Adequate sports and recreational facilities are provided to prevent idleness and antisocial behaviour

The presence of common facilities encourages healthy social interaction

I feel normal being watched at the facility

The visual characteristic of the building is pleasing and inspiring

The interior colours of the buildings are pleasing

The design promotes the image of incarceration, beggary and contribute to depression

V. CASE STUDIES

A. SOS Children's Village - Piliyandala

In December 1981 SOS children's Village in Piliyandala was established as the first ever SOS village in Sri Lanka. It was established with 16 family houses in the village. First, a group of mothers were trained by local NGO named Saravodaya and then moved to the village with the children as family units. Up to now the village has been accommodating three generations of families and at present it accommodates 135 children in 16 families as fourth generation. In the past 35 years the facility has successfully integrated more than 307 children into society.

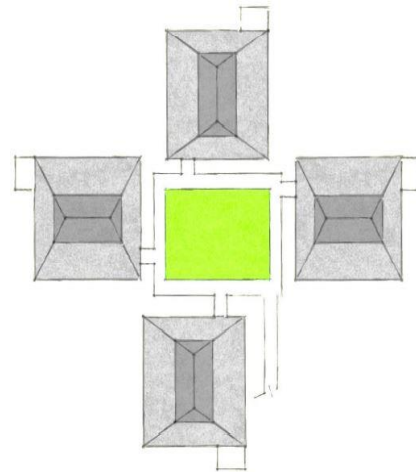


Figure 27. Courtyard arrangement between house units – SOS Children's Village – Piliyandala [Drawing] (Source –By Author)

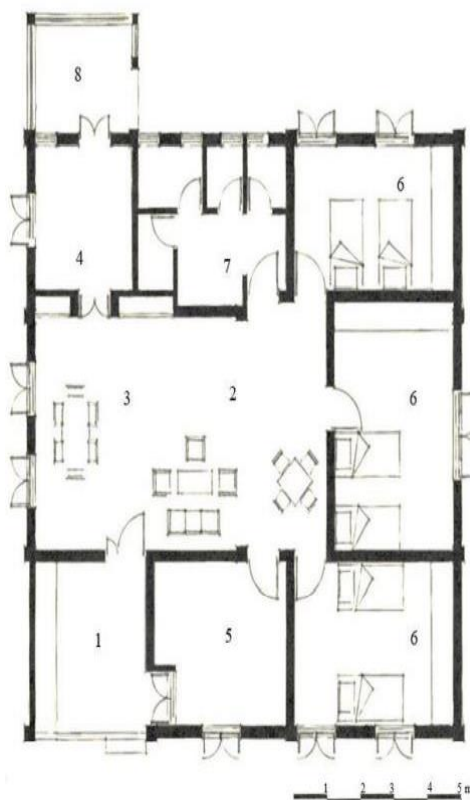


Figure 26. Plan of House – SOS Children's Village- Piliyandala [Drawing](Source –By Author)

- 1.Front Porch 2.Living Area
- 3.Dining Area 4.Kitchen
- 5.Mother's bedroom 6.Children's Bedrooms (nos. 03)
- 7.Washroom 8. Backyard

B. SOS Youth Facility for Boys – Piliyandala

This facility is a non-government juvenile rehabilitation facility and also a part of a SOS village. This was the first facility built for the SOS youth in Sri Lanka and could accommodate up to 40 youth who are yet in high school. The Youth Facility is situated on the far end of the 15 acres that is the campus for the Children's Village and

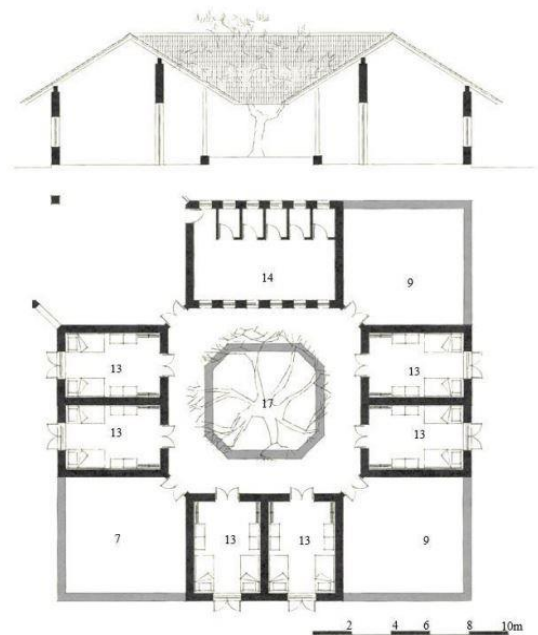


Figure 3. Section & Plan of children's Accommodation Area - SOS Youth Facility for Boys – Piliyandala [Drawing] (Source – By Author)

all other projects at Piliyandala. The building was designed by Archit. C. Anjalenden and it was established in 1989. The facility is a part of SOS village and after the age of fourteen the boys are moved to this facility from the SOS children's village.

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|---------------------------|----------------|
| 7. Classroom | 9. Common Area |
| 13. Bedrooms | 14. Washroom |
| 17. Open to sky courtyard | |

C. Certified School – Hikkaduwa

The certified school at the Hikkaduwa was established in 1952 as the first Sri Lankan child rehabilitation facility later converted into the first certified school in the country. Initially the facility was named as “Lake School” referring to its context. The land of the facility is surrounded by a lagoon. The vision of the facility is to bring the children who were offended to the correct path, under orders directed from the jurisdiction. The mission of the facility is to rehabilitate and reintegrate the boys who are admitted from the jurisdiction at age between 12 to 16, and boys who need special protection. At the present facility, 55 boys are accommodated. The area of the land is 14 acres and the facility

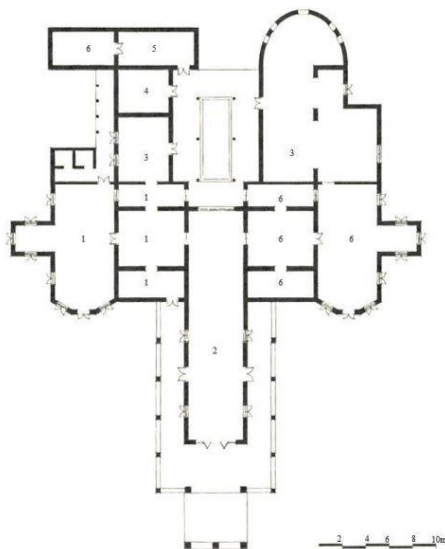


Figure 4. Plan of Manor – Certified School at Hikkaduwa [Drawing] (Source – By Author)

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|-------------------|-----------------|
| 1. Administration | 2. Lecture Hall |
|-------------------|-----------------|

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|-----------------|-------------|
| 3. Dining areas | 4. Library |
| 5. Kitchen | 6. Storages |

D. Case Study: 04 – Voluntary Home

This facility is a non-government juvenile rehabilitation facility and also funded by a foreigner, the facility has been registered under the department of probation and childcare services. Therefore, the children in the facility and the administrative functions are monitored by the probation officers. This facility was established in 1999. The building was initially a residential unit which was later converted into a rehabilitation facility. With time they have added new parts for the building following necessary requirement. The facility accommodates 22 girls aged between 10 to 18 years.

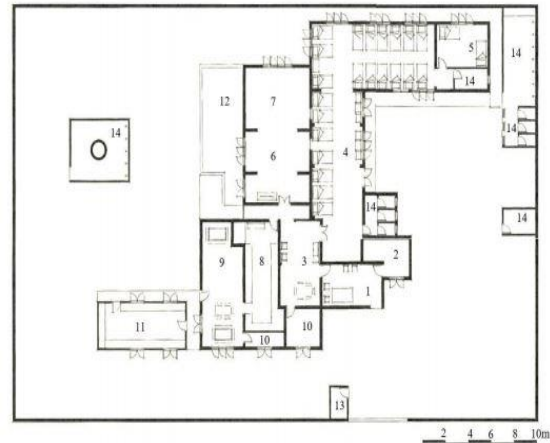


Figure 5. Voluntary Home Plan [Drawing] (Source – By Author)

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|----------------|----------------------|
| 1. Veranda | 2. Office room |
| 3. Living | 4. Bedroom |
| 5. Kitchen | 6. Storages |
| 7. Study area | 8. Utility |
| 9. Dining area | 10. Store |
| 11. Kitchen | 12. Working Space |
| 13. Guard room | 14. Toilets /Bathing |

VI. RESULTS

Table 10. Summary of Survey Results

Location and Site Planning
Integrate into community

Deinstitutionalized and homely built environment			
SOS Village	SOS Youth facility	Certified school	Voluntary home
Integrated with the community	Integrated with the community	Isolated from the community	Less integrated with the community
Deinstitutionalized and homely built environment	Environment appeals homely	Environment appeals normal and institutional	Environment appeals less homely
Spatial Organization			
Allow for surveillance			
Functional clusters or linear sequence			
SOS Village	SOS Youth facility	Certified school	Voluntary home
Central courtyard plan which aids supervision and surveillance	Aids supervision and surveillance	Separate surveillance required for different buildings	Aids supervision and surveillance, need to improve
Arranged around the main space	Linear sequence	No identification of functional clusters	No identification of functions
Provision of Amenities			
Sports and recreational facilities			
Skill acquisition facilities			
Religious facilities			
SOS Village	SOS Youth facility	Certified school	Voluntary home

Playgrounds and play areas were provided	Playgrounds and indoor games were provided	Playground has provided	Play area has provided
Skill acquisition facilities were provided	Skill acquisition facilities were provided	Skill acquisition facilities were provided	Skill acquisition facilities were provided
Outdoor shrine has provided	Indoor shrine has provided	Outdoor shrine has provided but not in use	Religious facility has not provided
Supervision and Security			
Avoid blind spots			
Promote freedom and unobtrusive supervision			
SOS Village	SOS Youth facility	Certified school	Voluntary home
Openness and courtyards avoid blind spots	Openness and courtyards avoid blind spot	Abundant buildings, attics, forest areas provide blind spots	Avoid blind spots, but need to improve
Promote freedom and unobtrusive supervision	Promote freedom and unobtrusive supervision	Promote freedom and unobtrusive supervision	Demote freedom by the rampart
Visual Character			
Inspiring and foster self esteem			

Familiar, homelike environment Eliminate image of incarceration/ punishment or beggary			
SOS Village	SOS Youth facility	Certified school	Voluntary home
Inspiring and foster self esteem	Inspiring and foster self esteem	uninspiring and foster humble	uninspiring
homelike environment	homelike environment	Prison environment	Institutional environment
Eliminate image of incarceration/ punishment or beggary	Eliminate image of incarceration/ punishment or beggary	Image of incarceration/ punishment or beggary	Image of beggary

Summary of Interview results

Table 11. List of Statements

Statement 01	The facility is isolated from the community and promotes the image of punishment
Statement 02	The landscaping of the facility is pleasing and encourage outdoor activities
Statement 03	The layout of facilities and circulation system encourage active participation
Statement 04	Adequate sports and recreational facilities are provided to prevent idleness and antisocial behaviour
Statement 05	The presence of common facilities encourages healthy social interaction
Statement 06	I feel normal being watched at the facility

Statement 07	The visual characteristic of the building is pleasing and inspiring
Statement 08	The interior colours of the buildings are pleasing
Statement 09	The design promotes the image of incarceration, beggary and contribute to depression.

Table 12. Summary of interview results

	SOS village Number of Participants 50	SOS youth Number of Participants 40	Certified school Number of Participants 50	Voluntary home Number of Participants 22
Statement 01	None (0%)	None (0%)	48 (96%)	15 (68.2%)
Statement 02	40 (80%)	35 (87.5%)	12 (24%)	10 (45.4%)
Statement 03	45 (90%)	38 (95%)	8 (16%)	9 (40.9%)
Statement 04	50 (100%)	40 (100%)	44 (88%)	17 (77.27%)
Statement 05	48 (96%)	35 (87.5%)	20 (40%)	12 (54.5%)
Statement 06	3 (6%)	2 (5%)	50 (100%)	16 (72.7%)
Statement 07	47 (94%)	38 (95%)	14 (28%)	14 (63.6%)
Statement 08	48 (96%)	38 (95%)	11 (22%)	16 (72.7%)

Statement 09	None (0%)	01 (2.5%)	49 (98%)	20 (90.9%)
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VII. CONCLUSION

Unlike adults, when a child is admitted into a rehabilitation facility there is a high chance of that child being a victim of deprivations and derogations. Due to that, the juvenile may have adoptive problems to strange places. Therefore, it is a necessity to launch gradual and methodological adaptation methods with adaptation systems. Through research, psychologists and environment behaviour studies have recognized the role of the built environment in behaviour control. The studies prove that the built environment can support or inhibit human behaviour change. It also affects cognitive behaviours of an individual, and an understanding about this relationship can help to determine and predict the activity and behaviour of its users. Positive behavioural interventions help to prevent juveniles from engaging in negative behaviours by changing the environment in which the behaviours occur. Interventions also help juveniles to develop social skills and individual behavioural skills which they need to succeed in an inclusive environment. The built environment includes the infrastructural elements, utilities, and all other structures created by humans. Therefore, it is the integrated built context in which individuals live, and it affects the attitude and behaviour of people in many ways, and built environment has a significant influence on the development of individuals and their activities and social interactions.

According to the United Nations, one of the ways of reducing juvenile delinquency is by altering the physical features of the environment through architectural and landscape planning and providing opportunities to engage young people's interest.

By following the case studies of SOS facilities initially designed by architects and the buildings of both certified school and voluntary home converted as juvenile facilities. According to the results, SOS facilities have achieved much

architectural attributes that has affected in the rehabilitation process much more positively than the others; certified school and voluntary home. According to the interview results juveniles at the SOS facilities have good impression and better psychological state comparing to the certified school and voluntary home. SOS facilities show that the architectural attributes helped to improve and enhance the rehabilitating and reintegration process through both visual survey and interviews. The facility has been designed specifically for the main user. And the juveniles who are released as adults to the society have a good image among the society and they are properly integrating. According to the SOS facility records, these children have good achievements in both education and extracurricular activities. Most of them are having good marriages and the proper higher education. When considering certified school at Hikkaduwa, the architectural character of the main building appears unnecessarily powerful and intimidates the juveniles in the facility. And the character of the accommodation buildings brings sense of punishment or imprisonment to the juveniles. The hierarchy of the spaces, the identification and response to the main user is very poor. Many juveniles who are reintroduced to the society have not had a good image in the society and they tend to reoffend in the future.

Character of the voluntary home also brings the sense of incarceration and the juveniles at the facility are much introverted and their relationship with the society is poor. This shows that the perception of such facilities varies from one juvenile to another or among groups of juveniles, and the design of such facilities must take these peculiarities into consideration.

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