

PRISON ARCHITECTURE AND ITS ATTENTION TO THE RE-SOCIALIZATION PROCESS OF INMATES

Tameez Bohoran* , Dimantha Weliange**
City School of Architecture, Colombo, Sri Lanka

Abstract

The penal system has been a reflection of society's changing attitudes toward crime and its consequences (Fikfak, et al., 2015) over centuries. The prison is the 19th Century a result of this. Solutions to dealing with the increasing crime rates have evolved significantly, from methods such as public execution and torture to spatial confinement (prisons) and discipline to rehabilitation and reintegration. But why are prisons still crowding and why does crime still prevail?

The historical evolution of punishment methods and the sociological theories on causes, influencing factors and social perception of crimes discussed in this paper help contextualize the theoretical framework of this study which addresses the 21st century approach to creating a crime free society, through architectural and spatial design of prisons that can enhance effective re-socialization of inmates.

It establishes the purpose of a de-carcerative¹ prison, which is the ability of such an institution to create a space that mirrors the socio-cultural environment in which the prison is established, in terms of functionality and architecture, without compromising the purpose of the institution itself, which is to deprive freedom as punishment. Such prisons help inmates ease into adapting to a lifestyle that is regimented in terms of time, space and movement (Foucault, 1975) but provides the inmate access to humane spaces that positively reinforce his/her psychological and emotional stability.

The primary benefit of this study is to determine if Sri Lankan prisons are moving in the right direction while giving insight to how prisons in other regions could help us develop our approach to re-socialization. Using examples of maximum security prisons from the local context and developed nations in Europe, this study discusses the socio-cultural, functional and architectural aspects that can enhance re-socialization effectively. The analysis is derived through literature, visual surveys, observation studies, and interviews. The findings of this research indicates that Sri Lankan prisons have attempted to evolve functionally, but are however slightly hyper-carcerative² in terms of socio-cultural and spatial aspects in comparison to those in Europe, known for its progressive systems of punishment.

Keywords: Re-socialization, hyper-carcerative, de-carcerative

* Corresponding Author: Tameez Merazia Bohoran; E-mail- tameezbohoran@gmail.com

** Corresponding Author: Dimantha Weliange; E-mail- dimanthaw@csacolombo.edu.lk

¹ Prison conditions that mirror normal life

² Prison conditions that are worse than normal

Introduction

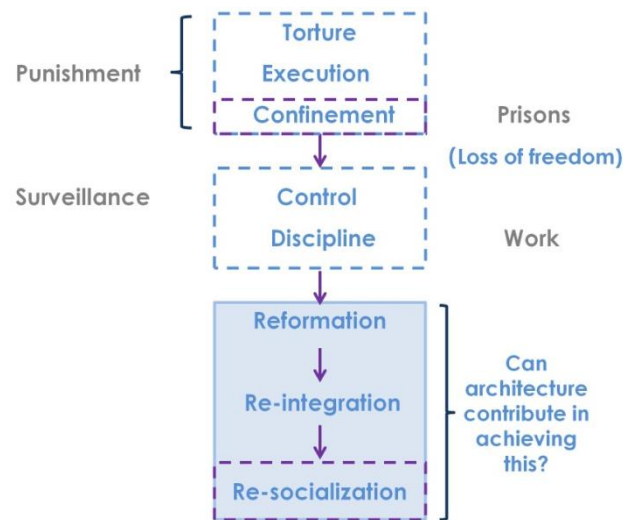


Figure 14- Punishment and Re-socialization (Source: Author)

Prisons in the past have often translated its punitive philosophy through its appearance, scale and volume. Hierarchical structures such as the Panopticon epitomized control and surveillance, and for centuries influenced the typology of prison design. Social degradation and stigmatization of prisons have greatly impacted prisoners and their ability to reintegrate into society. The sociological, functional and design philosophies of the institution play a significant role in establishing such perceptions. The penal systems across the world should respond to the evolving societal expectations and values. Throughout history, punishment was inflicted as a social custom upon a malefactor at the discretion of the society he belonged to (Stearns, 1936, p. 220). Punishment has been the response to all crimes. Torture was claimed to be a trial between the accused and the judge and was used to extract confessions without which the punishment could not be inflicted. The families of those punished were often subjected to social stigmatization.

Towards the end of the 18th century, the western world saw social revolutions against rulers and the nobles resulting in delegitimizing and the undermining despotic rule (Foucault, 1975, p. 73). Public punishments failed to deter crime, thus necessitating humanitarian approaches to deal with crimes (Stearns, 1936, p. 230). Humanitarianism was a response to appease the public outcry that rejected the sovereign's right to touch the body of his society (Foucault, 1975, p. 15) and this movement towards civil liberation was intended to benefit humanity as a whole (Guttner, 2015, p. 1).

With the abolishment of bodily torture, the prison became the 19th century response to dealing with crime, where deprivation of liberty was the primary goal of penitence and spatial association of punishment was established. Two centuries later, the prison still functions, now an institution to punish and reform, failing to comprehend the ever growing rate of crime and recidivism. This is due to the inability for inmates to re-socialize and reintegrate into society.

The objectives of this study are as follows:

- To investigate the importance of developing the prison as not just a place for punishment but a place for effective rehabilitation and re-socialization.

- To analyze the prison's responses to social, functional and architectural philosophies.
- To determine if prison architecture has the potential to eradicate social degradation and stigmas faced by inmates.
- To understand how humane approaches to prison design could control crime and benefit society.
- To examine if the prison functional and spatial philosophy in Sri Lanka is moving in the right direction.

Architecture has the ability to evoke emotion, perception and provoke thought through its form, spatial elements and poetics. The focus of this study is to identify how prison architecture can go beyond being a punitive space by playing a role in enhancing not just the rehabilitation, but the reintegration and re-socialization of inmates.

Theoretical Framework

Punishment and re-socialization

The origins of cellular confinement can be traced to the pre classical period, where beggars, vagrants, the insane and sick were confined and regarded as unproductive and dangerous (Foucault, 1975, p. 121). During the industrial revolution, as a result of capitalism, a large proportion of society was left unemployed. With the need to prevent social rebellion and unproductivity, institutions were established to confine and exploit this class of society as a source of cheap labor (Melossi & Pavarini, 1981, p. 144). These institutions were known as work houses. The concept of the work house was therefore incorporated into correctional facilities as a means of extracting forced labor from the inmates and instilling a sense of discipline. The categorization of inmates according to gender, age and crimes committed was also an important factor that was introduced (DOKGÖZ, 2002) to determine levels of security and type of facilities required.

Discipline was instilled through surveillance where prisoners were constantly subjected to supervision. Prototypes such as the centric Panopticon and the radial Penitentiary models epitomized surveillance and were adopted by many prisons in the Western world. Cells were the central elements of prison life, constructed to prevent interaction among inmates while enforcing discipline through a hierarchical spatial structure (Melossi & Pavarini, 1981, pp. 151-152). In the Sri Lankan context, prisons resembled their Western progenitors; where the use of thick masonry structures and walls which with small high windows paid little attention to the local climatic conditions. Inmates were completely confined for purposes of penitence and reflection. These systems included complete isolation with limited measures for inmates to reform.

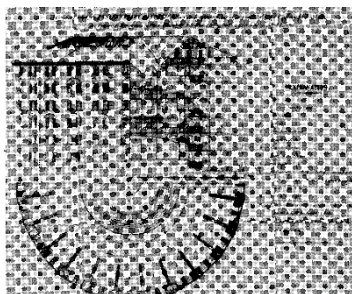


Figure 2-J. Bentham. Plan of the Panopticon
[Online image] (Source: (Foucault, 1975))

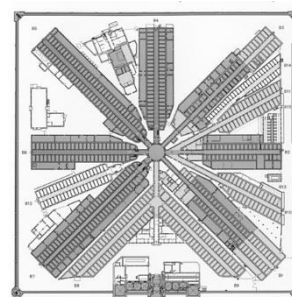


Figure 3-Plan of the Eastern state penitentiary, PA
[Online image] (Source: (Anon., n.d.))

20th Century prison institutions introduced rehabilitation programs to reform the inmates in addition to enforcing discipline. These measures included mental and physical rehabilitation programs, educational and awareness activities as well as socio-cultural activities to help inmates successfully reintegrate and re-socialize into society. Crime was also contextualized socially, economically and politically to determine the causes and circumstances.

Sociology of the Prison

Over the years many criminologists and sociologists have developed theories in order to explain the causes of crime and the circumstances that led some to commit crimes while others do not. Such studies have contributed towards the development of philosophies and facilities in prisons institutions that help control crime and reform criminals.

Sociological studies to help investigate the external social factors influencing criminal behavior as well as the internal social factors that impact the adaptability, reformation and rehabilitative process of prisoners within the institution.

A few of such theories are mentioned below,

- **The Adaptation Process by Erving Goffman, 1961:**
Situational withdrawal -- The rebellious phase-- Colonization-- Conversion
- **Prisonization by Donald Clemmer 1940:** The process in which the inmates habituate to the customs and sub-culture of the prison. A highly prisonized individual could fail to reintegrate to society after release as he/she has habituated to the prison sub-culture to a degree in which adapting to life outside is difficult. This could affect an inmate's ability to re-socialize after release and may result in recommitting of crimes, also known as recidivism.
- **Inmate code by Gresham Sykes :** The factors contributing towards the inmate culture as well as those challenging the rehabilitation process of inmates
- **Importation model by Irwin and Cressey 1962:** how the inmate sub-culture is influenced by the inmate's pre-prison social beliefs, norms and values that get imported upon his imprisonment.

Recidivism has become one of the main factors affecting the stigmatization of the institution. It can occur due to numerous factors. The theories on prisonization (Clemmer, 1940), adaptation levels (Goffman, 1961) and containment (Cullen & Wilcox, 2010) can either affect individuals either to varying degrees or have no effect at all. In some cases, an inmate may not have been completely rehabilitated or re-socialized by the time of his release, which could affect his reintegration to society, there by struggling to fit in. These mental and sociological challenges a prisoner faces after release could lead to recidivism.

Therefore it is essential that prisons not only fit into the social, political and economic contexts, but also integrate within the physical and built context in order to translate a humane image.

Prison Architecture and Design: The Humanization Approach

21st Century research suggests a holistic approach to dealing with criminality in contemporary a society. It is important to consider the role of architecture in the design of prisons (Vessella, 2017, p. 63) to reinforce the humane approach to dealing with criminality.

Prison architecture should be considered from multifaceted perspective rather than just a space for the segregation and social exclusion (Melossi & Pavarini, 1981, p. 144) of criminals. Prisons need to be studied at an urban scale. Integrating a prisons micro context with its macro context will positively contribute towards the organization and design of spaces, functionality and socio-cultural interactions (Vessella, 2017, p. 70). Therefore, it is important that prison architecture plays a pro-active role by identifying and preventing challenges and drawbacks of conventional prison systems of the past. It is essential that the prison needs to evolve socially, functionally and most importantly spatially.

With the introduction of vocational skills training, educational programs, cultural and recreational activities, the focus of imprisonment has shifted toward engaging the inmates in developing skills, talents and economic productivity (Fowler, 2015, p. 377). The cell is no longer the central element in the spatial and functional organization of a prison. Therefore, prisons need to incorporate a well articulated structure catering to individual and collective needs and activities that will reflect in its architecture and enhance the institutions relationship with its external context (Vessella, 2017, pp. 70-71).

There are 3 factors that need to be considered when designing prisons that help re-socialize inmates effectively:

- **Prison Design as a Means of Stress Reduction:** It is a key element that impacts a prisoner's ability to respond to rehabilitative measures. It is also directly associated with the social transformation a prisoner experiences such as overcrowding, lack of privacy, noise, and the lack of adequate light and ventilation within spaces.
- **Crowding in Prisons:** Crowding is a factor that causes fluctuations in the social and spatial densities within a prison. This will directly affect the accommodation provisions within the institution. Social density is defined as the number of people per space, whereas spatial density is the amount of space per person.
- **Visual and thermal comfort:** Visual and thermal comforts are factors that affect the indoor environment quality as well as contribute towards reducing stress levels among inmates.

Architectural Responses to Re-Socialization

There are two types of re-socializations that take place within prisons. Firstly, the prisoner needs to adapt to the sociological transformations of imprisonment and learn the behavioral patterns, disciplinary measures and the controlled nature of the prison environment. Secondly, the prison takes the responsibility to rehabilitate and reform the prisoner's deviant behavior and criminality to help him return to society as a normalized human being. However, this demonstrates that all prisoners go through two processes of re-socialization during their time spent in prison. The experience of two drastic social changes may affect the psychology and mental wellbeing of an individual. The degree to which a prisoner is re-socialized will depend on the length of his sentence, his psychological stability and criminality.

Architecture of prisons is identified to be either hyper-carcerative or de-carcerative (Moran, Jewkes and Turner 4). Hyper-carcerative prisons have strictly controlled physical and social environments portraying worse conditions in comparison to its external context. A majority of prisons around the world are hyper-carcerative. These prisons include elements such as high and secured walls, minimal fenestration, bars and grills.

De-carcerative prisons however mirror its external context physically and socially thereby adopting one process of re-socializing prisoners. These prisons reform and re-socialize inmates by taking away their freedom but providing them all aspects of regular life. This system is shown to demonstrate efficient and positive outcomes in the reduction of crime rates and recidivism (Vessella, 2017, p. 69). These prisons signify the 21st Century approaches of dealing with criminality and are commonly prevalent in the Scandinavian region w (Moran, Jewkes and Turner 15-16).

Architectural approaches in achieving de-carcerative prisons can be considered in many ways:

- **The location-** This will determine the degree to which the prison interacts with its external context (Vessella, 2017, p. 70) as well as the natural, physical and socio-cultural attributes the prison should respond to (Fikfak, et al., 2015, p. 28).
- **Structure and organization-** Structural size and volumes should be modest to achieve effectiveness as well as a humane impression (Fikfak, et al., 2015, p. 29). The prison layout should blend in with the urban fabric as well as encourage social interactions. This can be achieved through proper zoning of spaces where non-detention spaces can be offered to the outer communities (Vessella, 2017, p. 70). This can be an alternative to the impenetrable wall where functional buffers could be the source of security.
- **Accommodation cells and blocks-** The cells should become the prisoner's safe haven and his personalized space rather than a space for punishment and confinement. The block or ward should become a prisoner's neighborhood with the existence of common spaces for social interactions and activities (Fikfak, et al., 2015, p. 29).
- **Outdoor spaces-** These spaces should include landscape designs and draw in natural elements from the outside world in order to give inmates a sense of belonging (Fikfak, et al., 2015, p. 30).
- **Content and functionality-** The prison should reflect the dynamics of normal society in order to help prisoners re-socialize more effectively (Fikfak, et al., 2015, p. 29).

The factors above are measures towards establishing an effective re-socialization process. Reflecting the dynamics of the outside world within the institution intends to make prisoners understand that freedom is valuable. De-carcerative prisons will not give the prisoners the opportunity to blame the system, but rather help them reflect on their offenses thereby helping them reform (Fowler, 2015, p. 378). Punishment therefore is merely a deprivation of freedom and not detrimental to the physical, mental and emotional wellbeing of individuals.

Methodology

In order to determine the role a prison plays in re-socializing its inmates, various methods of researching the physical, social and functional aspects of the institution have been utilized. The theoretical framework presented in this study describes punishment and re-socialization from sociological, functional and architectural perspectives. These parameters are applied to the chosen case studies to analyze the prisons approaches to reform and re-socialize inmates.

Research Parameters: The first part of the analysis in each case included a Socio-cultural background and analysis of the prison in order to derive the how it impacts the functional and architectural aspects of the institutions. This analysis included a macro analysis of the socio-cultural context of each institution as well as the socio-cultural background within the institutions

as well. This was carried out to contextualize the nature of the institution and determine the potentials to socially integrate inmates.

The functional and spatial analysis was then conducted to determine the carcerative extent of each institution, and how re-socialization could be made effective through the enhancement of suitable functions and spatial organizations in each of these instances.

Qualitative analysis: Maximum security prisons are not easily accessible to the public. Special permission is required to visit and study the institution. Photographic documentation is not permitted; therefore methods such as visual mapping, site sketching and behavioral mapping were adopted during visits to the local prisons. Day tours around the prison complexes enabled the careful observation of spatial and functional relationships within the facilities at different times of the day. Movement and behavioral patterns of inmates were documented over the course of the visits. The spatial features, typologies and built layouts were mapped out in order to analyze spatial responses to the prison society.

Quantitative analysis: The questionnaires conducted within a sample group of inmates were one of the fundamental methods of quantitative analysis. A pilot study was first conducted on a one on one basis between the author and a smaller group of inmates on voluntary basis in order to derive the structure and design of the main questionnaire. The pilot study was carried out in an informal manner where a series of casual questions were answered by the inmates with regard to their experiences, quality of life and quality of space within the prisons.

The final questionnaire was designed to obtain the inmates viewpoint on the prisons functionality, spatial attributes and daily activities that may contribute towards the process of reformation, rehabilitation, re-socialization and reintegration. This survey was conducted on voluntary basis among larger sample groups of ordinary prisoners facing long term and short term sentences.

In order to determine if prisons have successfully adapted to the changing needs of society over time, the case studies were chosen from two different periods of establishment and regions. The following table highlights what methods of research were adapted to study each parameter and the analysis of each factor individually and comparatively.

In order to carry out the cross case analysis, 31 functional and spatial attributes were tested against each institution. Each prisons response towards achieving and responding to the attribute either completely or partially was recorded with the aid of the data gathered. This method of analysis was adopted to determine the level of carcerality of the prison that in turn results in the institutions potential for effective re-socialization.

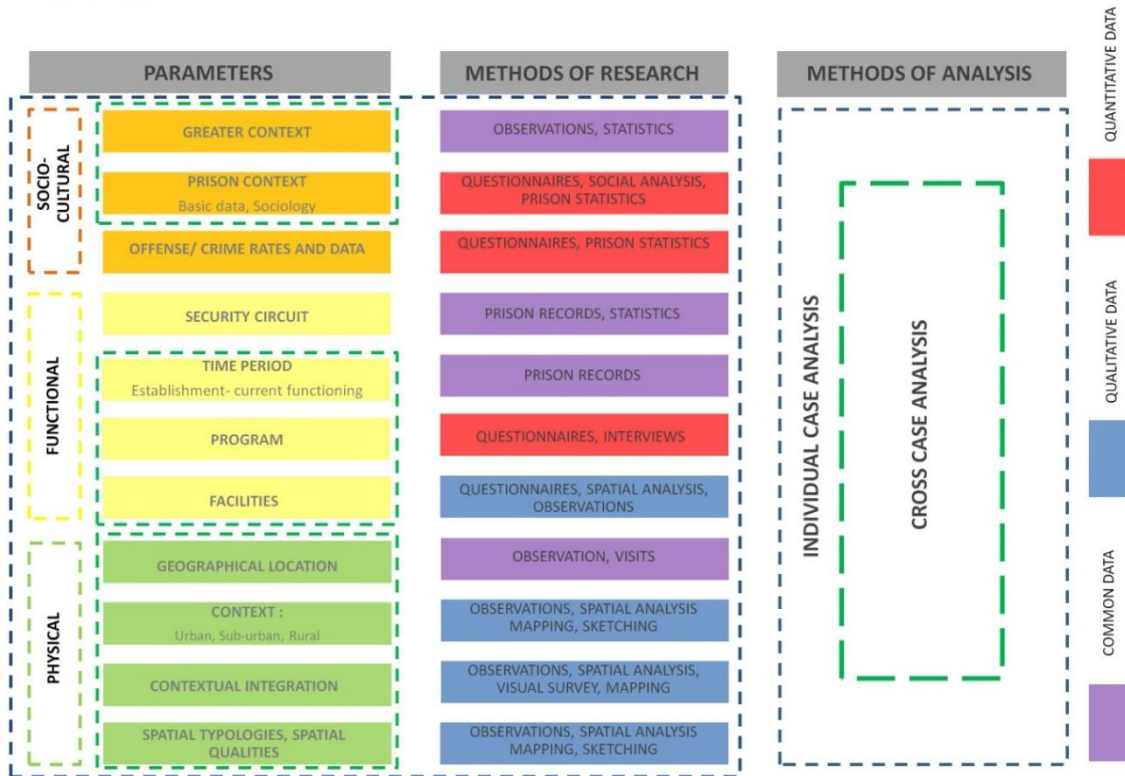


Figure 4-Framework of Methodology [Diagram] (Source: Author)

Case study selection criteria

- **The security circuit of the prison and its functional philosophy-** This study focused on maximum security prisons in both local and foreign contexts.
- **Location-** The diversity of physical, social and ecological contexts. The two prisons belong to different contexts. The socio-economical status of the countries is also different in this case.
- **Accessibility to information.**
- **Diversity in time periods in which prisons were established:** This helps analyze the influences the time periods may have on each prisons social structure, functionality and architectural features and attributes.
- **Spatial typologies and significant architectural layouts of the institution.**

Local case studies:

1. **Welikada Prison, Colombo:** Urban maximum security prison established in 1841
2. **Bogambara Prison, Pallekele:** Sub-urban maximum security prison established in 2013

The architecture and design of these prisons was analyzed against socio-cultural and functional and spatial philosophies of the institution.

Foreign case studies:

3. **Halden Prison, Norway:** Sub-urban maximum security prison established in 2010
4. **New Lenzburg central prison, Switzerland:** Urban maximum security prison established in 1864

Functional analysis

The prison facilitates the following functions in allocated spaces:

- **Religious activities:** The prison includes a temple, a chapel, a kovil and a mosque area for all religious rituals.
- **Educational activities:** A library, a scouting unit and multipurpose hall is provided for educational programs.
- **Health:** The prison hospital is located outside the main prison complex. However, a clinic for medical checkups is available within the prison.
- **Industrial work activities:** The Pingo section has a range of programs also known as 'parties' such as carpentry, soap making, cane industry, brush making, weaving, printing, tailoring, iron monger, cultivation as well as a salon. These industries enable the inmates to obtain a vocational training certificate from NAITA. The prison facilitates one of the largest laundries in the country.
- **Cultural activities and sports:** The cultural troupes include a band, a dance group and drama troupe that practice daily under professionals.
- **Kitchen:** The prison has an industrial kitchen, run by the inmates under supervision that provides daily meals for all inmates. It also has a bakery that generates an income to the prison.

Functional Issues of the Welikada Prison

- **Overcrowding:** The issue of overcrowding is a burden on the functional capacity of the prison. The Welikada prison currently has an occupancy rate that is thrice its design capacity. This is a burden on the infrastructural and administrative aspects of the prison and can greatly impact the thorough reformation and rehabilitation of inmates.

Spatial Design Analysis

The chapel ward and the 'L' hall are two of the oldest buildings in the prison complex and have a distinct cruciform layout and a rectangular layout respectively.

The chapel ward has 3 levels including a basement in its western wing. The four wings are accessed by a central double heighted atrium space. Each wing has a triple gable roof and comprises of a central passage with individual cell blocks positioned on either side. The façade is punctured by 600mmx600mm grilled windows at a 1500mm high sill level. These windows are the only source of illumination for each cell. This ward has 420 individual cells. The 'L' hall has a three tiered roof concealed by gabled wall. The façade and gable wall are ordained with horizontal moldings to define the floor lines (Figure below). Each cell has a high window for illumination. Central halls on each floor are lit up by an arch window with grills for security. The top of the gable has a circular rose window.

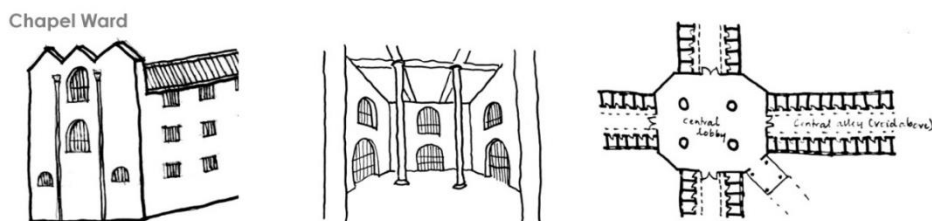


Figure 7- Welikada Prison: Chapel ward- Triple gable roof, Atrium and Cruciform layout [Sketch] (Source: Author)



Figure 8-Welikada Prison: 'L' Hall- 3 tiered gable roof and wall with moldings [Sketch] (Source: Author)

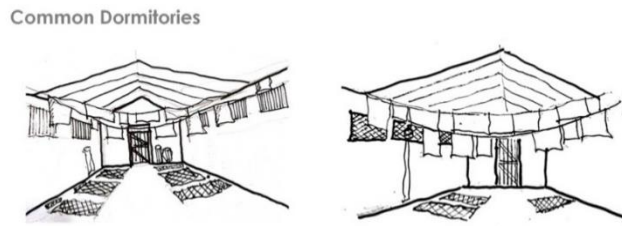


Figure 9-Welikada Prison: Common dormitories internal perspective [Sketch] (Source: Author)

The dormitory spaces are usually allocated for ordinary inmates. These are open halls with no demarcated spaces to sleep. These blocks usually have a single entrance and 600x600 barred windows spaced at 1200mm (c/c) on either side of ward, at a height of 1800mm. Common toilets and showers are located outside this ward. Inmates are usually assigned to dormitories based on their daily work tasks.

Each space within the prison was analyzed by means of observation as well as through responses from the sample group of inmates. The following diagram maps out the spatial preference of inmates with regard to peace and tranquility.

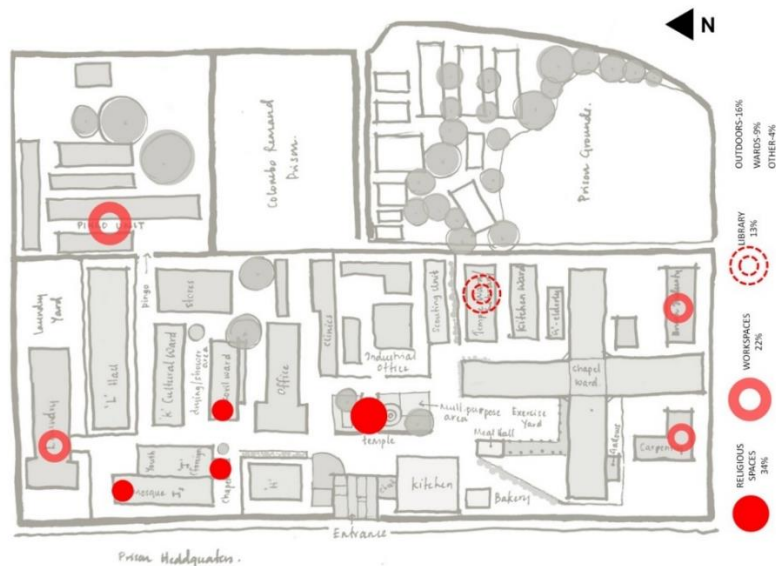


Figure 10-Welikada Prison: Spatial preference: Overall [Sketch] (Source: Author-based on questionnaire)

Results showed that majority (34%) of the inmates' preferred religious and spiritual spaces whereas 22% of the inmates preferred their workspace. Other spatial preferences included the newly constructed library and outdoor areas. 9% voted for their wards; however these inmates were those that belonged to the collective dormitories for the cultural unit.

This analysis was carried out to determine the perceptions of spatial quality, light and ventilation in different zones within the prison. Inmates then rated the overall quality of life and the overall quality of space in prison. Each of the results was tabulated accordingly.

Inmate feedback

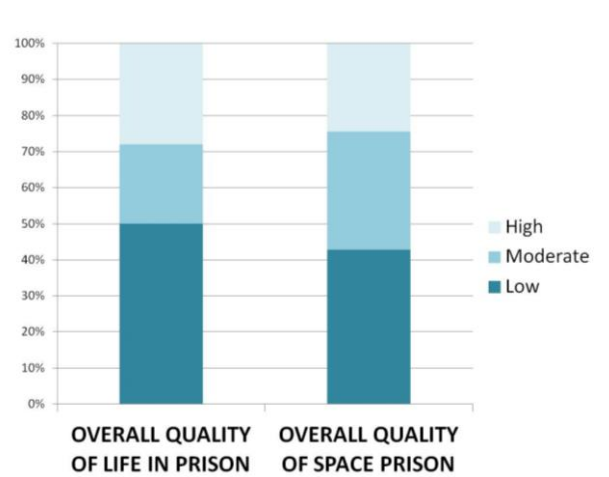


Figure 11-Welikada Prison: Overall quality of life and quality of space [Chart] (Source: Author-based on questionnaire)

On a scale of 1-9 the inmates were asked to rate the overall quality of life in prison as well as the overall quality of space (Figure 10). 50% rated the overall quality of life as low, while 22% and 28% rated it as moderate and high respectively. 42% rated the overall quality of space as low, while 33% and 25% of the inmates rated it as moderate and high respectively.

It was interpreted that the Welikada prison is a slightly hyper-carcerative prison where the overall quality of life and space are relatively lower than that of the normal society.

Spatial Issues in the Welikada Prison

- **Inadequacy of space:** Common dormitory wards have no spatial demarcations to allocate space for inmates. This leads to a constant struggle with obtaining space, given that inmates are locked up for 12 hours daily.
- **Lack of attention to outdoor spaces:** With the exception of the pingo unit, the prisons main functional spaces lack a defined landscape concept.
- **Inadequate light and ventilation within spaces:** Small high windows are a common prison design element. These admit minimal light and air into the buildings thereby reducing the visual and thermal comfort levels.

Architectural Potential to Enhance Re-socialization

- **Location potential:** Given that the Welikda prison is located in the urban context, it is possible to enhance relations and interchange with its external context (Vessella, 2017). The prison wall physically isolates the prison from its surroundings, thereby restricting the interactive potential. It is important that the prison is viewed as a part of the neighborhood rather than a city within a city in terms of effective re-socialization.
- **Structure and Zoning:** Non-confinement spaces could be located in the periphery of the prison complex to act as security buffers as well as functional spaces to enhance economic growth, social interactions and community services. Instead of the prison

becoming a burden on society, it should be seen as an economic asset. Through this, inmates could directly interact with the public to develop positive socialization skills, experience and knowledge.

- **The prison should adopt a de-carcerative approach** not in just the rehabilitative process but the architectural aspects as well. Enhancing spatial quality could evoke positive behavioral patterns among inmates. De-carcerative prisons mirror regular societal functions and interactions. These prisons could help inmates develop their re-socialization skills rather than experience drastic social transformations.

Foreign Case Study: Halden Prison, Norway

Halden Prison, is a maximum security institution located 100km South-East of Oslo (Vessella, 2017) and is the 2nd largest prison in Norway. Established in 2010, this prison is identified as prime example of a de-carcerative prison and one of the groundbreaking institutions representing radical rethinking on crime and punishment (Kofman, 2015). This prison values rehabilitation as one of the utmost requirements while also conducting behavioral research (Vessella, 2017).

Surrounded by a pine forest and grasslands, this prison isolates itself by means of a natural buffer as well as an 8m high wall. The prison has however retained the natural forest within its 75 acre periphery in order to respond to its context. There is minimal development surrounding the prison. However, industrial buildings and service centers constitute majority of the built fabric.

The Scandinavian region is known for its progressive approaches to imprisonment and has one of the lowest levels of criminality. Norway has an overall prison population of 3300 inmates while its recidivism rate is 20%. (Institute for Criminal Policy Research, 2017).

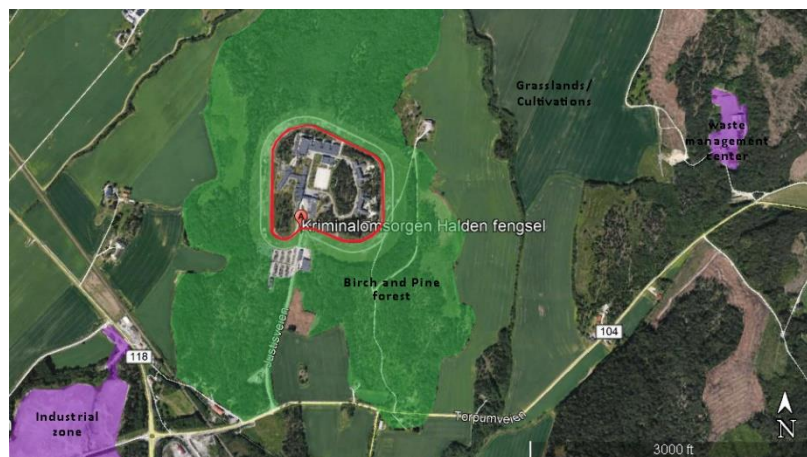


Figure 12-Halden prison [Edited map] (Source: www.google.com/maps; Author)

■ Murder, Assault and rapists ■ Drug offences ■ Other offenses

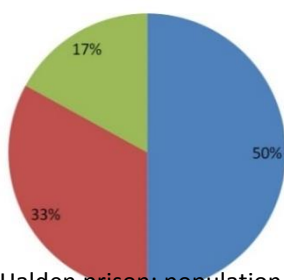


Figure 13-Halden prison: population based on crimes [Chart] (Source: (Benko, 2015)

The prison population of the Halden prison is 252 inmates of both Norwegian and foreign origins. With no death penalty in Norway, and the abolishment of life sentences in 1981, the highest prison sentence is 21 years, and could be increased by 5 years per term if the inmate shows no improvement. This prison also provides drug addiction therapy as well.

Social interactions between officers and inmates are enhanced through activities such as games, lunch

and tea. The formation of such interpersonal relationships along the vertical hierarchy of the prison social structure enables safety by means of dynamic security.

Functional Analysis

- **Accommodation blocks:** Each individual room is equipped with a washroom, a tamper proof bed, desk and chair and a TV. A large bar less toughened glass window gives the inmates views to the surrounding landscape. Two of these cloisters make up a block. There are 3 accommodation units; A, B and C. 'A' is the most restrictive unit where as B and C are more open living cell blocks.
- **Common amenities in blocks:** Each cloister in units B and C has a common living room, dining room, a fully equipped kitchen area for inmates to cook and a multifunctional room.
- **Workshops:** All inmates are assigned to work activities and are taught skills according to their preferences. Skills such as welding, sculpting, ceramics etc.
- **School/Library:** Inmates are required to attend classes for rehabilitation and counseling programs. They could also access the library at their free time.
- **Gymnasium/Recreation yard/ sports field:** This prison is equipped with an indoor gymnasium as well as an open recreation yard. The sports field can be used by inmates depending on the stage of their sentences.
- **Recording studio:** This is for musically inclined inmates who can access this space at their leisure.
- **Grocery store:** Inmates are encouraged to purchase food and personal care items once a week with their daily work incentives from the prison store in order to teach them financial management and responsibility.
- **Common Kitchen and dining:** Apart from the common amenities in the accommodation blocks, the prison has a common kitchen and dining is for inmates and staff to dine together.
- **Guest quarters:** Inmates are allowed visitors twice a week for 2 hours.
- **Multi religious space**

Spatial Design Analysis

- It has been consciously designed to normalize the environment in which the inmates live in to ensure that the re-socialization process is effective and recidivism is minimized.
- Buildings are all G+1 and are constructed with locally sourced timber, fired brick and galvanized steel. The prison follows a biophilic design concept where the inmates are connected to their surroundings and the natural environment visually, physically and emotionally.



Figure 14-Halden prison: Views from inside [Online image] (Source: www.moma.org)



Figure 15-Halden prison: Views from outside [Online image] (Source: assemblepapers.com.au)

Spatial Typologies and Elements

- **The wall:** Although known for its progressive nature of design and other facilities, the wall is significant. It is an 8m tall concrete structure that has been rounded off at the top to reduce the hostile appearance. Internally, the wall has been camouflaged by Pine and Birch trees.



Figure 16-Halden prison: Boundary wall [Online image] (Source: www.moma.org)



Figure 17-Halden prison: Boundary wall as seen from the interior [Online image] (Source: <http://www.gossiprocks.com>)

- **Accommodation blocks:** Each block consists of a mirror image of two cloisters with a common room. The central space is allocated for the prison officers and their amenities.

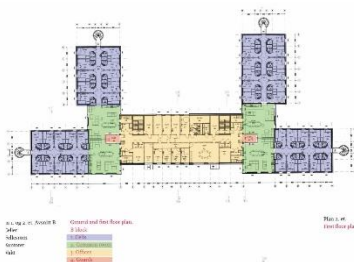


Figure 18- prison: Layout of Block B [Online image] (Source: http://followtheart.info/kareff-Sat_16_11.html)



Figure 19-Halden prison: Individual accommodation cells [Online image] (Source: allthatsinteresting.com)



Figure 20-Halden prison: Exterior view of accommodation blocks [Online image] (Source: www.moma.org)

- **Recreation yards:** Common and solitary recreation yards have been provided for inmates of all security requirements. Graffiti art and mural have been incorporated into these spaces in order to enhance spatial quality.



Figure 21-Halden prison: Common and solitary recreation yards [Online image] (Source: almostthisotyofart.wordpress.com)

- **Artwork and murals:** Artwork and murals have been incorporated to evoke thought and perceptions among inmates.



Figure 22-Halden prison: Banksy inspired murals on yard walls [Online image] (Source: almostthisotyofart.wordpress.com)

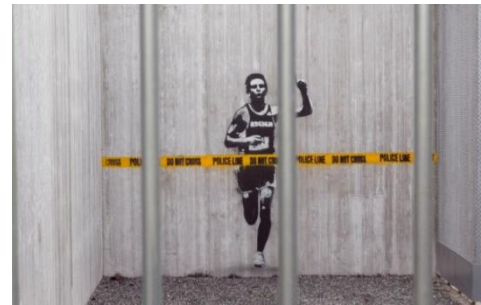


Figure 23-Halden prison: Banksy inspired murals on yard walls [Online image] (Source: almostthisotyofart.wordpress.com)

- **Colour coded spaces:** Spatial zones are distinguished through use of colour where activity rooms have brighter palettes and cells have subdued and soothing colours (Hancock & Jewkes, 2011).



Figure 24-Halden prison: Library [Online image] (Source: <http://society.ezinemark.com>)

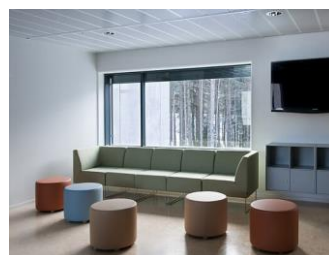


Figure 25-Halden prison: Common area [Online image] (Source: www.scoopwhoop.com)

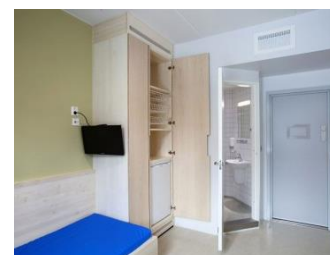


Figure 26-Halden prison: Accommodation cell [Online image] (Source: designyourtrust.com)

Outdoor environmental analysis

The vegetation around the prison has been retained within its walls in order to reflect and respond to its natural context. The outdoor communal spaces within the prison have been designed to

maximize interaction between inmates and guards. Jogging tracks, benches and outdoor furniture have been incorporated into the landscape design to give the inmates a sense of belonging.



Figure 27-Halden prison: Natural landscape
[Online image] (Source: www.adn.com)

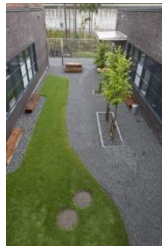


Figure 28-Halden prison: landscaped courtyards [Online image] (Source: www.moma.org)



Figure 29-Halden prison: Outdoor spaces [Online image] (Source: www.designindaba.com)

A variety of groundcover has been utilized to demarcate circulation spaces, garden spaces and intermediate spaces. Vehicular access and pedestrian access paths are carpeted while turf and gravel have been used to define planting areas.

Architectural Responses to Enhance Re-socialization

- **Location response:** The design of the prison responds to its natural context in a sensitive manner, in order to reduce the sterile nature of conventional prisons.
- **Structure:** Apart from the peripheral wall, the structures of the prison are all human scale, not exceeding G+1. Materiality of the structure evokes the natural world with its localized palette.
- **De-carcerative prison:** The prison system emulates the functions of a normalized society where inmates are met with their needs and requirements of regular life, although deprived of their freedom. Here, even inmates with highly restrictive sentences are entitled to work and educational facilities rather than being locked for 23 hours. This signifies that all inmates have a second chance at re-socializing.
- **New security measures:** Bars, grills and small windows have been replaced by larger windows with toughened glass to optimize relationships between outdoor and indoor environments. Guards are frequently unarmed and directly supervise inmates although CCTV and other technological devices such as automatic door locks have been used as security measures.

Architectural Potential to Enhance Re-socialization

- **Zoning:** Common spaces could be zoned in order to replace the boundary wall in order to create better integration with the social context. Although the social context has not developed to a great extent, the prison could further humanize its approach by breaking the monotony of the wall.

Cross case analysis

The cross case analysis presents the comparisons and contrasts of the functional and architectural design aspects in the prisons. A list of 31 functional and spatial indicators were used to determine each prisons level of carcerality and its approaches and potentials to efficiently re-socialize inmates. The 5 categories were location, spatial design and concept, Appearance of the prison as a whole, Accommodation and cell blocks and Content and Functionality.

Each indicator was marked on a point system in order to determine if the prison is hyper-carcerative or de-carcerative. Positive responses to these indicators will obtain point 1 point. Responses with potential will obtain 0.5 points, where as responses with no approaches or potential will obtain 0 points.

Point system:

- 1-7.5 points:** Hyper-carcerative
- 8- 15 points:** Slightly hyper-carcerative
- 16 points:** Moderately carcerative
- 16.5-22.5 points:** Slightly De-carcerative
- 23-31 points:** De-carcerative

The above point scale would indicate the level of hyper-carceration and de-carceration of each of the chosen prisons. The analytical study of these indicators also signify which of the 5 categories the prisons have responded well to and which of those they lack.

Figure 31 below elaborates the responses for of each prison to the 31 spatial and functional attributes with the relevant points obtained.

CATEGORY	INDICATOR
LOCATION	1. Prison isolation/integration with the existing built environment
	2. Characteristics of the immediate surroundings
	3. Extent
SPATIAL CONCEPT AND DESIGN	4. Prison size/capacity
	5. Layout characteristics
	6. Form characteristics
	7. Daylight quality
	8. Characteristics of building materials
	9. Application of colour and artwork
	10. Correlation between surrounding and prison space
	11. Correlation between outdoor vegetation and prison interior
	12. Available size of outdoor areas
	13. Materialization of outdoor areas
	14. Characteristics of urban furniture
	15. Analogy to motifs typical of the outside world
	16. Existence of bars
	17. Existence, appearance and visibility of the wall
APPEARANCE OF THE PRISON AS A WHOLE	18. Design aesthetics
	19. Relationship with the immediate built environment
	20. Impression about the prison from the inside
ACCOMMODATION CELLS AND BLOCKS	21. Number of persons per cell
	22. Standard cell size
	23. Cell design, materialization, equipment, and daylight
	24. Number of cells/inmates per block
CONTENT AND FUNCTIONALITY	25. Adjustment to age, gender, and security level
	26. Analogy with day-to-day life outside the walls
	27. Program diversity
	28. Characteristics of spaces for common activities
	29. Establishment of links with external institutions
	30. Inclusion of the public
	31. Development of spatial communications and mobility

Figure 30-Functional and Spatial responses to re-socialization: List of indicators [Table]

	Welikada prison, Colombo		Bogambara prison, Pallekele		Halden Prison, Norway		Lenzburg central prison, Switzerland	
1.	Located in the urban context	1	Located in the suburbs. Fairly isolated.	0.5	Remote location. Isolated	0	Located within city boundaries	1
2.	Urban built fabric	1	Thick vegetation with a few residential buildings	0.5	Woodland	0.5	Agricultural land	1
3.	48 acres	1	10 acres	0.5	75 acres	1	10 acres	0.5
4.	3093	0	800	0.5	252	1	315	1
5.	Rectangular and Cross layout	0.5	Rectangular profiles with central courtyards	1	Branched layout	1	Radial layout with branched wings from center	0.5
6.	Scattered rectangular structures and cross form main wing	0.5	Scattered rectangular structures	0.5	Main longitudinal structure with four branched wings	1	Compact, monolithic, longitudinal, all-in-one structure	0
7.	Scarce daylight in the interior	0	Moderate daylight	0.5	Sufficient daylight	1	Moderate daylight in the interior	0.5
8.	Brick, timber and grills	1	Concrete, timber and steel	1	Timber and brick	1	Concrete and Local slate	1
9.	Dull interiors with a few outdoor sculpted mural walls	0.5	Dull interiors and exteriors	0	Colored surfaces to demarcate space purposes, large scale photographs and graffiti	1	Modest use of colors and wall artwork	1
10.	Prison space cut from the surroundings by wall	0	Prison space cut from the surroundings by wall	0	Exterior space partially represents the surrounding Woodland	0	Prison space cut from the surroundings by wall	0
11.	No significant outdoor vegetation to correlate to	0	No correlation with outdoor vegetation	0	Drawing the vegetation into the prison interior achieved by atrium layout and tall trees	1	Drawing vegetation to the interior not carried out	0
12.	Scarce outdoor spaces	0	Few outdoor spaces- mostly yet to be developed	0.5	Abundant outdoor space	1	Scarce outdoor space	0
13.	Gravel and few areas with plants	0.5	Gravel and turf	0.5	Grasslands, gravel, middle and tall vegetation	1	Concrete and turf. Scarce vegetation	0.5
14.	No urban furniture	0	No urban furniture	0	Benches, overhangs, trash cans	1	Kiosks	0.5
15.	Resemblance to dense urban fabric	1	No resemblance to context	0	Resemblance to natural context and cultivations	1	No resemblance to context	0
16.	Bars and mesh on windows and doors	0	Bars and mesh on windows and doors	0	Windows without bars	1	Barred windows	0.5
17.	Tall wall significant from outside. Buildings pressed against wall from inside	0.5	Tall wall significant from outside. Internal buildings are walled as well.	0	Concrete wall appearance softened both from the inside and the outside with landscape features	0.5	Concrete wall out scaled by buildings	1
	Welikada prison, Colombo		Bogambara prison, Pallekele		Halden Prison, Norway		Lenzburg central prison, Switzerland	
18.	Conventional prison design: large structures with small openings	0	Conventional prison design: Large structures with small openings.	0	Simple and deliberated design	1	Simple unobtrusive design	0.5
19.	Wall enclosure dominates the external appearance	0	Wall enclosure dominates the external appearance.	0	Design with non-obtrusive emphases, compatible w/ Norwegian traditions	0.5	Modest visibility and unobtrusive appearance achieved with below-grade construction	0.5
20.	Rigid impression from inside with few landscaped planting to soften the exterior structures	0.5	Rigid impression from inside. Haphazard turfing and planting	0.5	Synergy with the cultivated nature from the inside	1	Rigidity and impression of entrapment from inside	0
21.	Up to 4 persons per single cell. Mix of single cells and common dorms	0	Up to 4 persons per single cell. Mostly common dormitories	0	Mostly single cells	1	Mostly single cells	1
22.	4.4 m ² single cells	0	4.4 m ² single cells	0	10 m ² single cells	1	7.8 m ² single cells	0.5
23.	Cells and dorms with common sanitary facilities. Dull wall colors. Insufficient daylight and ventilation.	0	Cells and dorms with common sanitary facilities. Dull wall colors. Sufficient daylight and ventilation. Common TV in the hallway in some wards	0.5	Cells with a sanitary unit, white walls, contemporary simple wooden furniture; sufficient daylight	1	Cells with a sink, toilet, bed, table, chair, cabinet; mostly white walls, few colored surfaces; scarce daylight	0.5
24.	Up to 400 inmates per 3 storey cell block. Up to 75 inmates per common dormitory	0	Up to 75 inmates per single storey dormitory	0	Up to 12 inmates per block: Individual occupancy	1	24 inmates per block: Individual occupancy	0.5
25.	Adjustment to age, gender and assigned work/activity. Inefficient adjustment to security level	0.5	Adjustment age and gender. Inefficient adjustment to security level	0.5	Adjustment to security level, gender	0.5	Adjustment to age, gender and security level	1
26.	Analogy with "basic living", work, and home (cell-work-cell)	0.5	Analogy with "basic living", work, and home (cell-work-cell)	0.5	Analogy with "contemporary living in the village"	1	Basic living without spatial association	0.5
27.	Work/vocational, sports/scouting, religious/spiritual, educational, cultural activities, kitchen, laundry	1	Work/vocational, sports/scouting, religious/spiritual, educational, cultural activities, kitchen, laundry	1	Work/vocational, sports, religious, educational, nature walks, pvt. visits hobbies, kitchen, laundry, shopping,	1	Agriculture, cooking and dining, washing-up, work, crafts, education, sports, healthcare	1
28.	Allocated religious spaces with basic facilities, library, gym, performance spaces, grounds	1	Basic facilities. Yet to be defined according to functions	0	kitchens, dining and living areas, Laundry, gym, workshops, indoor religious area, cultural centre, guest house and visit rooms, classrooms, shop, library, walking paths, yards	1	kitchen, dining room, laundry room, games room, recreation room, classrooms, outdoor yard	0.5
29.	Laundry serves other govt. institutions, vocational training monitored by NAITA	1	Vocational training monitored by NAITA	1	N/A	0	Dept. of Education in prison BIST, Affiliated to SAH: Provides basic education to adult inmates	1
30.	welfare shop goods bought by other institutions	0.5	Salon open to the public	0.5	N/A	0	Prison 5* store and gallery open to public.	1
31.	Communications and movement only inside/ among the Building	0	Communications and movement only inside/ among the Building. Inmates can work in salon under supervision.	0.5	The established main footpath connects buildings, inmates and landscape	1	Communications and movement only inside the premises	0.5
	Total	12.5	Total	11	Total	25	Total	18

Figure 31-Functional and Spatial responses to re-socialization: List of indicators [Table]
(Format Source: Fikfak, et al., 2015; Author)

CATEGORY	INDICATOR	W	B	H	L
LOCATION	1. Prison isolation/integration with the existing built environment	1	0.5	0	1
	2. Characteristics of the immediate surroundings	1	0.5	0.5	1
	3. Extent	1	0.5	1	0.5
SPATIAL CONCEPT AND DESIGN	4. Prison size/capacity	0	0.5	1	1
	5. Layout characteristics	0.5	1	1	0.5
	6. Form characteristics	0.5	0.5	1	0
	7. Daylight quality	0	0.5	1	0.5
	8. Characteristics of building materials	1	1	1	1
	9. Application of colour and artwork	0.5	0	1	1
	10. Correlation between surrounding and prison space	0	0	0	0
	11. Correlation between outdoor vegetation and prison interior	0	0	1	0
	12. Available size of outdoor areas	0	0.5	1	0
	13. Materialization of outdoor areas	0.5	0.5	1	0.5
	14. Characteristics of urban furniture	0	0	1	0.5
	15. Analogy to motifs typical of the outside world	1	0	1	0
	16. Existence of bars	0	0	1	0.5
	17. Existence, appearance and visibility of the wall	0.5	0	0.5	1
APPEARANCE OF THE PRISON AS A WHOLE	18. Design aesthetics	0	0	1	0.5
	19. Relationship with the immediate built environment	0	0	0.5	0.5
	20. Impression about the prison from the inside	0.5	0.5	1	0
ACCOMODATION CELLS AND BLOCKS	21. Number of persons per cell	0	0	1	1
	22. Standard cell size	0	0	1	0.5
	23. Cell design, materialization, equipment, and daylight	0	0.5	1	0.5
	24. Number of cells/inmates per block	0	0	1	0.5
CONTENT AND FUNCTIONALITY	25. Adjustment to age, gender, and security level	0.5	0.5	0.5	1
	26. Analogy with day-to-day life outside the walls	0.5	0.5	1	0.5
	27. Program diversity	1	1	1	1
	28. Characteristics of spaces for common activities	1	0	1	0.5
	29. Establishment of links with external institutions	1	1	0	1
	30. Inclusion of the public	0.5	0.5	0	1
	31. Development of spatial communications and mobility	0	0.5	1	0.5
Total		12.5	11	25	18

Figure 32-List of functional and spatial response indicators: with points [Table] (Source: Author)

The above analysis shows the results of each prison under each of the 31 attributes that indicate if the prison has responded to the given statement or not.

The cross case analysis conducted determined the functional and spatial responses to re-socialization while deriving each prisons level of carcerality (Figure 29). The potential to effectively re-socialize inmates were based on the categories of indicators such as, Location, spatial design and concept, appearance of prison, accommodation and cell blocks and content and functionality.

The findings can be summarized as follows:

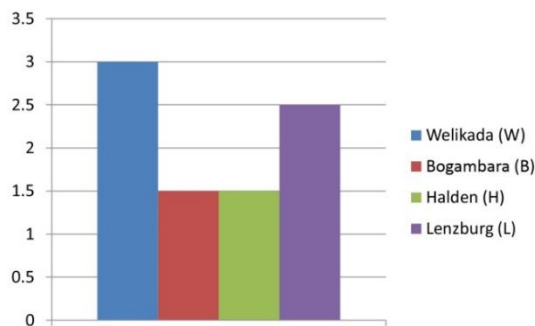


Figure 33-Cross case analysis: Location potential [Chart] (Source: Author)

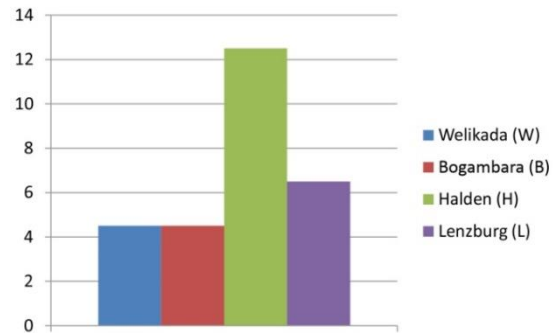


Figure 34-Cross case analysis: Spatial design and concept [Chart] (Source: Author)

- Location potential:** The prisons with the best potential to re-socialize its inmates based on location are the Welikada prison and the Lenzburg central prison (Figure 31). These two prisons were established in the 19th Century and are located in urban contexts with convenient accessibility and proximity to established socio-cultural, built contexts and amenities. This will enable inmates to develop their social skills and re-socialize effectively. Halden prison and Bogambara Prison were established in the 21st Century and are located in sub-urban contexts that are not developed completely. Thus, the potential to re-socialize inmates based on location is less that the urban prisons. The sub-urban locations however, could provide peaceful environments.
- Spatial design and concept:** The Halden Prison in Norway has the best spatial design and concept as indicated below (Figure 32), due to its contemporary solutions to prison architecture; with careful considerations to view quality, daylight and outdoor environments. The Lenzburg prison, through its renovations and extensions is developing its potential to achieve better design and concept. However, the two local case studies have the least potential to re-socialize its inmates through spatial design and concept, as both these prisons still conform to conventional prison design elements. The Bogambara prison although a 21st Century institution, has still adopted the 19th Century schemes.

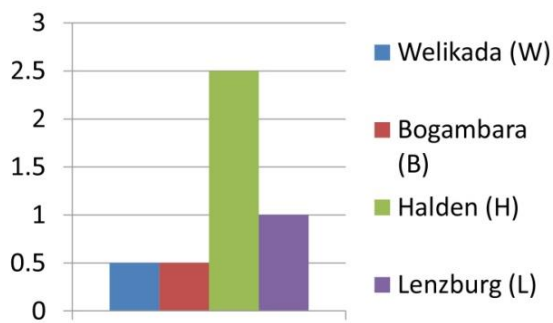


Figure 35-Cross case analysis: Appearance of the prison as a whole [Chart] (Source: Author)

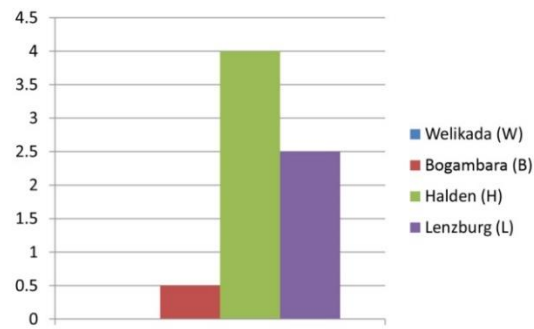


Figure 36-Cross case analysis: Accommodation and cell blocks [Chart] (Source: Author)

- Appearance of the prison as a whole:** Although all prisons have a boundary wall, the design aesthetics and the internal impressions of spaces contribute towards the prisons visual appearance. Although the wall can dictate the relationship each prison has with the immediate built environment, how a prison responds to attributes of its immediate context it vital. The Halden prison design scheme considers all these elements and provides inmates a visually pleasing environment within its walls, thereby achieving the best approach to re-socializing its inmates (Figure 33). The local prisons however, have scored much less in comparison in this section.
- Accommodation and cell blocks:** The Welikada prison has the least consideration to accommodation factors and spatial density, owing to its overcrowding issue. The Bogambara prison has a better potential to increase the quality of accommodation as it is still under development. The Halden prison has the best quality of accommodation and spatial density given its attempts to adopt the idea of contemporary living (Figure 34).

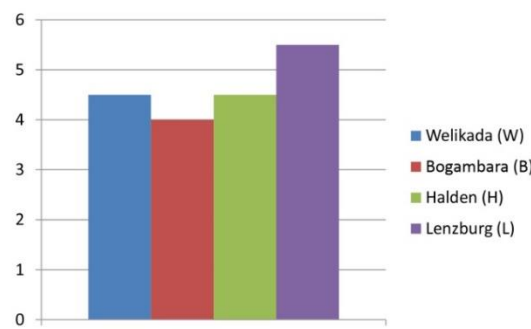


Figure 37-Cross case analysis: Content and functionality [Chart] (Source: Author)

- Content and Functionality:** All four case studies show competitive figures in this section (Figure 35). Thereby, it can be deduced that all prisons have an extensive program diversity, opportunities and attention to common activities and spaces. The Bogambara Prison has the lowest points in this category as it is still being developed to its complete functional capacity. The Lenzburg Central Prison however has the best potential to re-socialize its inmates through content and functionality through its diverse industrial training and opportunity and public integration. This prison has been the most successful in developing an urban collective culture (Vessella, 2017), through its agricultural and commercial ventures. The Welikda Prison and the Halden Prison in Norway have moderate and equal scores, determining that the content and functionality have potential to grow.

The level of carcerality is important in order to determine if the prison has the ability to effectively re-socialize its inmates or if the problem of recidivism will prevail due to the inmate's inability to re-socialize.

De-carcerative prisons are important when dealing with both major and minor criminals in order to help de-stigmatize prisons and achieve social reintegration and re-socialization.

Conclusion

The levels of carcerality based on the overall points obtained were derived as shown below:

- **Welikada Prison (W):** 12.5- Slightly Hyper-carcerative
- **Bogambara Prison (B):** 11- Slightly Hyper-carcerative
- **Halden Prison (H):** 25- De-carcerative
- **Lenzburg central prison (L):** 18- Slightly de-carcerative

Halden is the most de-carcerative prison although isolated from a significant physical and social context. This prison has normalized life within its walls to an extent where inmates can live like a society. This prison signifies the 21st Century approaches to prison architecture and functionality. These overall results show that the Sri Lankan prisons are slightly hyper-carcerative in terms of spatial design, appearance and quality of accommodation.

Giving careful considerations to these elements may contribute towards effectively re-socializing inmates and avoiding drastic psycho-socio transformations. De-carcerative prisons not only normalize life within prisons but can also uplift the social wellbeing of inmates, thus making imprisonment only a deprivation of freedom rather than suffering.

The study revealed the measures taken by Halden Prison to revolutionize its approach to prison design as well as the 19th Century Lenzburg Central Prisons approach to adapt to the progressive penal philosophies of the 21st Century as a method of successful re-socialization of inmates.

Architecture can influence its user, evoke thought, perception and enhance the psychological wellbeing. Architecture also has the ability to create socially functional environments (Fikfak, et al., 2015). This study was inspired by the lack of attention to prisons in relation to spatial responses and design in the local context. The penal system in Sri Lanka faces a constant struggle with increasing crime rates. The prison population as of 2017 was 22,833 of which 47.2% were first offenders, 32.7% were Re-convicts and 20% were recidivists (Department of Prisons, 2018). Theory suggests that these issues arise due to the inmate's inability to reintegrate into society (Clemmer, 1940; Goffman, 1961).

The prison system has undoubtedly transformed over the years. However, research outcomes in this study indicate that although extensive measures to rehabilitate have been introduced, crime prevails.

21st Century prison establishments in the local context still conform to conventional typologies and design schemes. Therefore, it is essential to understand that the prison should not only transform its functional philosophy, but should incorporate the growth of the socio-cultural, functional and most importantly the architectural philosophies. The problem Sri Lankan prisons encounter is the disparity between the social, functional and spatial environments within the prison with those environments that surround it. Societal perceptions on inmates and the

institution also need to transform in order to help enhance an effective re-socialization process. Societal acceptance and de-stigmatization of prisons and inmates need to be advocated for in order to move forward.

This study was carried out with the intention of analyzing factors that could contribute towards improving the local penal system while positively reinforcing the outcomes of mitigating crime. If prisons were established solely for the purpose of depriving freedom while adopting de-carcerative approaches with the objective of re-socialization, the penal system could be more successful in time. As society continues to evolve, it is the responsibility of future generations to identify how we could go beyond the process of re-socialization in order to make cities and nations a better place to live in.

References

- Clemmer, D., (1940). *The prison community*. s.l.:s.n.
- Cullen, F. T. & Wilcox, P. eds., 2010. Reckless, Walter C.: Containment Theory. In: *Encyclopedia of Criminological Theory*. Thousand Oaks: SAGE Publications, Inc., pp. 777-782.
- Department of Census & Statistics, S. L., 2014. *Statistical Abstract*. [Online] <http://www.statistics.gov.lk/Abstract2014/Pages/chap1.htm>
- Department of Prisons, 2018. *Prison statistics of Sri Lanka*, Colombo: s.n.
- DOKGÖZ, G. D., 2002. *Prison Architecture A Typological Analysis of Spatial Organizations in respect to Punishment Systems*. s.l.:s.n.
- Fikfak, A., Kosanović, S., Crnić, M. & Perović, V. J., 2015. The contemporary model of prison architecture: Spatial response to the resocialization programme. pp. 27-34.
- Fikfak, A., Kosanović, S., Crnić, M. & Perović, V. J., 2015. The contemporary model of prison architecture: Spatial response to the resocialization programme.
- Foucault, M., 1975. *Discipline and Punish*. s.l.:s.n.
- Fowler, M., 2015. The Human Factor in Prison Design: Contrasting Prison Architecture in the United States and Scandinavia. In: *The expanding periphery and migrating center*. s.l.:Association of Collegiate Schools of Architecture, pp. 373-380.
- Goffman, E., 1961. *Asylums: Essays on the Condition of the Social Situation of Mental Patients and Other Inmates*. s.l.:Anchor Books.
- Guttner, D. v., 2015. *The french revolution*. s.l.:Nelson.
- Hancock, P. & Jewkes, Y., 2011. Architectures of Incarceration: The spatial pains of imprisonment.
- Haynes, F. E., 1949. *The Sociological Study of the Prison Community*.
- Institute for Criminal Policy Research, 2017. <http://www.prisonstudies.org/>.
- Kofman, J., 2015. In Norway, A Prison Built On Second Chances. *Weekend Edition Sunday*, 31 May.
- Melossi, D. & Pavarini, M., 1981. *The prison as a factory: Origins of the penitentiary system*. London: The Macmillan press Ltd.
- Moran, D., Jewkes, Y. & Turner, J., 2015. Prison design and carceral space.
- Stearns, A. W., 1936. Evolution of punishment. *Journal of criminal law and criminology*, 27(2).
- Vessella, L., 2017. Prison, Architecture and Social Growth: Prison as an Active Component of the Contemporary City.