

## **IMPROVING INMATE INTERACTION THROUGH A STUDY OF CIRCULATION IN PORT HARCOURT REMAND HOME**

**Paul Adiele Kingsley, Ramota Obagah Stephens**

**Department of Architecture, Faculty of Environmental Sciences, Rivers State University, Nkpolu, Oruwuruokwu, Port Harcourt.**

**Email:**

**07031385040**

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Abstract- A good correctional facility derives from an understanding of the needs of the facility's users, who are the young people who live there and the institution in charge of providing for their care. At the architectural design stage of a correctional facility, it is necessary to consider the quality that enhances the rehabilitation process and implement. The study examined the home and environment of juvenile delinquency in Nigeria, with emphasis on Port Harcourt remand home as a case study. The main purpose of this study is to Improve Inmate Interaction through circulation. Hence, visual surveys were used to collect data and group discussions were held in juvenile correctional facilities. This study concludes that using practices of architectural circulation and supervision of inmate contact behavior management in the construction of a correctional facility, based on normative design principles plays a significant role in lowering crime and recidivism rates.

Keywords: Inmate interaction, Juvenile, correctional facility, architectural circulation, rehabilitation.

### **1. INTRODUCTION**

Correctional facility design is an important field that demands attention and research from architects. It focuses on the child or adolescent need of assistance which involves therapeutic design considerations that are restorative and not detrimental to the health of inmates. As well as creating an environment that responds to user and staff perceptions and behaviors, the requirements of daily programming, and the constant need for safety, security, and good management. Security in such institutional settings is offered through distinct but interrelated aspects of security: physical, procedural and relational security (Kennedy, 2002; RC Psych Quality Network for Forensic Mental Health Services, 2015; Tighe & Gudjonsson, 2012). The

use of correctional institution is the most common form of punishment used globally. According to André et al (2013), the number of juvenile offenders in correctional institutions has decreased in the past five years, although their recidivism rates are still an object of concern. About 50% of juvenile offenders recidivate within two years of release (Wartna et al., 2011). The correctional institutions have been severely criticized by inspectorates because they were considered to be unsafe for juveniles (Inspectie Jeugdzorgand et al., 2007). Bukstel and Kilmann (1980) review of 90 experimental studies, considers that imprisonment is not harmful to all individuals, some persons deteriorated in response to confinement while other persons improved their functioning and still others showed no appreciable change. A complex interaction of factors including individual difference variables, institutional orientations, degree of crowding, phase of sentence, and peer group affiliation seems to influence an individual's response to confinement.

## **2. LITERATURE REVIEW**

A juvenile detention center is a facility established for the purpose of reformation, rehabilitation and reintegration of juveniles in a safe environment and as such facilities for formal and vocational education (Isaac, 2021). The design of a humane atmosphere where the environment aids both in recovery and stabilization, spaces such as narrow corridors and blind spots that prompt psychological distress should be avoided (Kruegr, 2018). Furthermore, natural setting to help influence positive behavior, courtyards and recreational spaces which provides privacy but don't instigate fear (Kruegr, 2018). Basic processes such as intellectual growth (e.g., assimilation, accommodation, and equilibration) have been inextricably linked to interactions between individuals and their immediate environment (Piaget, 1954). More current explorations of neighborhood effects on crime reflect a similar core belief (Sampson, in press; Sampson, Morenoff, & Gannon-Rowley, 2002). An individual's experiences with particular aspects of settings potentially exert a marked influence on later behavior. Thus, the perceived environment is a central feature of these social science frameworks. Bronfenbrenner (1979) defines environment to include influences beyond the immediate setting (the mesosystem, exosystem, and macrosystem). Bronfenbrenner (1979) strongly emphasized the role of perceptions, asserting that "what matters for development and behavior is the environment as it is perceived rather than as it may exist in objective reality". Kevin et al 1983, stated that inmates falling into different categories should have different probabilities of victimization, predatory behavior, or violent acts. It is the predictive utility of a classification system that makes it a useful management information tool. It is expected that the administrator assigns inmates to appropriate settings to minimize problems as cost effectively as possible and to make policy decisions regarding the proper care and supervision of inmates (Kevin et al, 1983).

The experiences in the juvenile justice system can be expected to influence subsequent behavior and developmental outcomes in these adolescents (Steinberg, 2009). Thus juvenile offenders change their behavior as a consequence of current environmental demands, and perceptions. For juvenile offenders, institutional placement could have an important influence, since it occurs during a critical developmental period. Furthermore when identity formation is at its peak and the development of human and social capital sets the stage for later life opportunities (Mulvey & Schubert, in press).

### **Inmate Interaction**

According to Bowker (1980), inmate culture is often described as a barely controlled “jungle,” suggesting that inmate socialization is tempestuous and bears little similarity to regular social interaction in general society. Inmate’s social life in the informal environment has a “greater influence than all the rules, official admonishments, sermons, or other factors (Chong, 2013). Referring to Kenneth (2010) inmates usually have numerous glaring errors and misperceptions presented as facts. This misunderstanding leads to problematic policy decisions offering “impossible solutions that make perfect sense only to someone who’s never served a minute inside a cell. (Chong, 2013) outlined four major theories that underline current literature on inmate-to-inmate relationships:

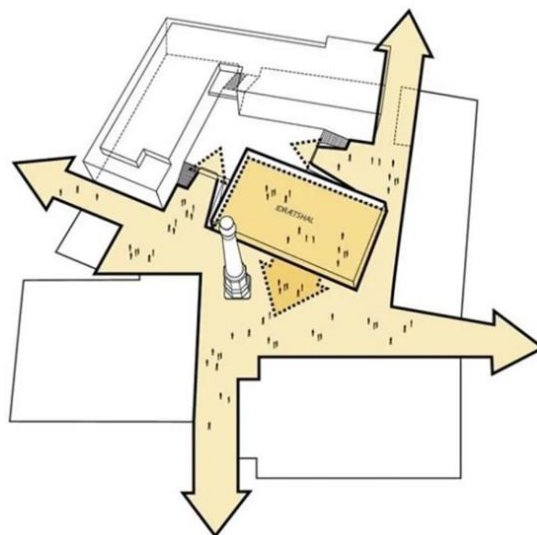
1. **Prisonization Theory:** This theory says that prison has a distinct culture and inmates begin to internalize the “attitudes and values” from this culture (Roxell, 2011). (Richard, 2006) emphasized that inmate culture is internalized regardless of voluntary acceptance due to inmate code imposed onto newcomers.
2. **Theory of Differential Association:** The theory of Differential Association goes further to identify the values. It says that the inmates’ culture revolves around illicit behavior, leading one another to even further illicit behavior. (Irvin, 1974). This concept explains criminal activity as a socially learned endeavor. It revolves around criminal behavior, learned and adopted from other “deviant” persons. (Edwin, 2012).
3. **Victimization:** In victimization inmates experience distress from harassment from other inmates. Chong, (2013) argues that victimized individuals respond to this aggression with only a limited means of defense and consequently face continual fear and uncertainty unless they join protective gangs. To highlight the severity of aggressive behaviors, Bowker (1980), references the real physical dangers that may ultimately result from victimization.

## Improving Inmate Interaction

A constructive relationship between staff and young people in custody forms the basis of a therapeutic and 'open' custodial environment (van der Helm et al., 2011; van der Helm et al., 2014). An open climate provides a safe, structured and therapeutic environment, counteracting the use of repressive measures (van der Helm et al., 2011). It involves social support, opportunities for personal growth and flexibility in care and control (van der Helm et al., 2014). Common design elements that have been related to mental health outcomes include: access to daylight, natural lighting and glare; reduced noise levels; adequate privacy, 'home-like' (as opposed to institutional) features; and access to gardens and nature (Connellan et al., 2013). Similar design features were identified by the Wellbeing in Prison Design project that sought to develop an evidence base for improving prison design through the application of environmental psychology (Bernheimer et al., 2017). Further, prison design is thought to impact and define the identities and behaviours of its detainees, partly by shaping daily activities and the social interactions that take place inside (Jewkes, 2018; Oostermeijer & Dwyer, 2019).

## Architectural circulation

Although the designs and sizes of all buildings can vary, what counts most is how people use them. It's critical to consider how spaces will be used as architecture continues to alter our environment. The portrayal of movement in connection to a building, complex, or urban development is called an architectural circulation. It can be applied to projects or used to evaluate a plan's effectiveness during the planning phase. This is an illustration of how circulation can be impacted by form. People are either guided to go in a specific direction or encouraged to walk freely and autonomously. (Archisoup, 2021). In support of circulation subsequent sections will call for a conceptual framework for improving inmate interaction.



### Fig 1: Form and circulation

Source: Archisoup (2021)

Circulation here refers to how people move through a structure (Archisoup, 2021). The effectiveness of the design for its intended users is guaranteed by a seamless flow of people. A great floor plan makes it simple for people to navigate it with little difficulty or resistance. Everyone who uses the space can gain from improved circulation, including young offenders in custody, employees and members of the general public. When used in a direction, circulation is the general movement of people throughout the structure, both on specific floors and between floors. Vertical circulation and horizontal circulation are the two types of direction.

1. On a single floor, people move from one area to another via horizontal circulation. To move throughout the building, people can use the hallways, pathways, entrances, and exits.
2. The vertical circulation of a structure depicts how individuals access its many levels and floors. Hence, utilize the general public from the building's private users can be distinguished by their patterns of circulation. The parts the public can access the easiest. These regions frequently cross paths with welcoming environments like lobbies, patios, or atriums. The design of these spaces is frequently prioritized in order to provide the public a strong image of the structure.

Private circulation refers to lanes and passageways that are less visible and more challenging to access. These can be used for services and utilities as well as entry to private rooms. Private circulation, which may be accompanied by signage like "Employees Only" or "Authorized Access," aids in controlling access to specific areas (Archisoup, 2021).

People flow can be considerably altered by form in design. The basic goal is to have a smooth and easy movements or routes of the planned users of a building. A design with free flow that makes sure the users can easily use it. To successfully construct a floor layout that enables the young person to move around with little difficulty or resistance. From the point of entry to the distribution of individuals to different rooms and places, circulation has a direct impact on how easily people may move through or how congested an area is. It can make it easier for people to interact, for people to come and go, and for people to move around or through the building.

### **3. METHODOLOGY**

The study examines Port Harcourt Remand Home in the Rivers State. The building layout, design and its environment are analyzed and how these features has helped in reprimanding juveniles. These facilities are designed to keep custody of juveniles who are against the law (Borstals institutions and Remand center Act, Cap.B11 LTN 2004, laws of federation of Nigeria, 2004). Descriptive research design was adopted in the study and was carried out.

Therefore, obtaining data from both visual survey and oral interviews, the visual survey examines the built environment of the facility and compares it to the desired characteristics of other juvenile correctional facilities. The study builds on previous work on the development of a method for consistently and efficiently gathering information about relevant dimensions of an institutional environment.

### 3.1 Port Harcourt Remand Home Borokiri



Fig 1: Google map of Port Harcourt Remand Home Borokiri  
Source: google earth (2022)

Port Harcourt Remand Home is in a tropical monsoon climate region with longer rainy season than a dry season. It is situated at Borokiri, Nembe Street with a cluster of buildings where people live and work. It was formerly a Borstal residence for young offenders. Due to inadequate management, it is no longer functional, although the building's condition is still decent because it continues to house people and make use of some of its features (Belejit, 2021).

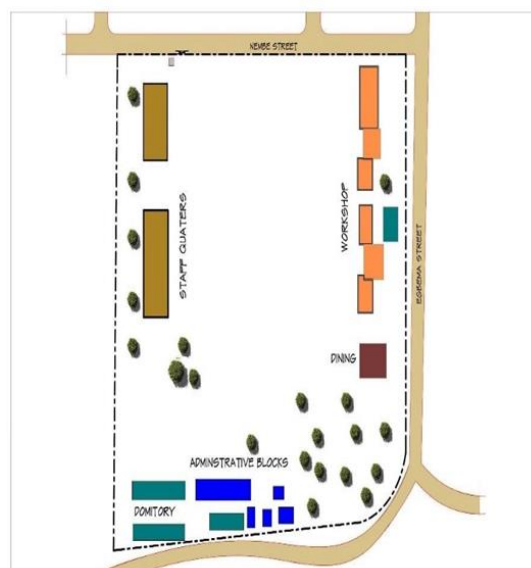


Fig 2: Port Harcourt Remand Home Borokiri

Source: Belejit (2021)

The design demonstrates architectural layout and its application. This facility is laid up in a campus/courtyard design. Prisons usually have usually have a multitude of smaller individual buildings for housing and other structures that are organized around a central open space (Hannah, 2021). This simplified form is often what appears from an aerial view. From the entrance is the football field and staff housing for the facility's employees on the left. There is the vocational facility which includes those for welding, cooking, mechanical/electrical workshops, and tailoring. The administrative area is towards the back, and the inmates' homes are behind it. They are all solitary buildings. The building is situated on a small plot of ground, which is insufficient to house all the units and services required to operate a juvenile detention facility. Residential structures encircle the location. Therefore the driving idea behind the campus layout is humane design.

The facility has four blocks all arranged in an 'I' shape which is built with room for all the essential components of corrections. When entering the facility the capability of navigating adds to feelings of inclusivity. Safety is of the utmost importance within correctional facilities (Farbstein & Wener, 1982). The reform method within the facility includes: Counseling method of reform and Light punishment of wards. There is no provision for Social facility that allows greater interaction among young offenders in custody, officers, and visitors.

#### 4. RESULTS OF FINDINGS

This research gives light and proper information on the benefit of inmate interaction an institution as such, and as well giving it an elaborate structure to correct juveniles and eliminate the inhuman nature of Juvenile facilities. Effectively combating these social ill behaviors will require the following intervention by government and other stakeholders to give solutions through the design process in the administration of Nigeria justice system. The following physical environmental aspect of the juvenile facility that impacted upon the daily interactions with young people are as follows.

**Circulation:** The facility should have sufficient and efficient circulation to serve the inmates, be it in the different spaces provided, on site, or even in the horizontal and vertical movement systems to be provided, to enable the users of the facility interact and flow in and with the design. It includes enough space for staff to engage with individual young people while on the unit.

**Nature Connection:** The facility should have a connection with nature infused in it, as green spaces are proven to aid creativity, concentration, positive psychological and behavioral effects

(Hannah, 2021). So courtyard, gardens and carefully outdoor spaces should be considered. The authors suggest that “environments that are devoid of any representation of nature can not only make us psychologically unwell and regressive in our behavior but also make us display physical symptoms and responses (Söderlund, 2017).

**Legibility and Orientation:** young people have a strong desire to understand and interact with the environment around them. The environments should therefore provide its users with safety, food and shelter, as well as them preferring environment that stimulate curiosity while providing a certain level of certainty. Building style can serve a variety of functions more cost effectively, while inmates and staff members have the opportunity to be outside, enjoy fresh air, and experience the changing seasons (Davies, 2005).

**Crowding and Privacy:** the inmates require both privacy and social contact. The need to find solitude and designate a personal territory for oneself is supported or hampered by the physical environment. Not being able to remove your face from the prying glance of others (Schwartz, 1972). Aggression, abuse, and substance misuse can be encouraged by overcrowding, a lack of privacy, and lack of control over living conditions (James, 2018). Not only does overcrowding endanger people in terms of fire or building safety, it can also impact human psychology (Hannah, 2021). These factors can also impair social connections. Environments must be created that satisfy people's demands for social connection and seclusion.

**Engagement and Empowerment:** Opportunities for civic engagement are seen as fundamental human needs and as being crucial to both the mental health of individuals and society. Regarding architectural design, population density, and stressor control, the built environment has an impact on involvement. Sanne (2022), noted that areas which facilitate communal activities contributed to a more positive environment and opportunities for relationships building. Therefore having young people do activities together creates opportunity for teaching and building their social skills.

**Risk and Safety:** It has been discovered that satisfaction with built-environment elements predicts perceived inmate safety more accurately than instances of violation or personal victimization. Since nobody else is around to see the area and the interactions taking place, it becomes (considered as) dangerous while it is empty. Inmates are encouraged to stroll, exercise, and participate in sports by having access to open spaces, benches, trees, gardens, and recreational amenities. Tolerance is more likely to be fostered by frequent social interaction and exposure to diverse social groupings. Built environments that encourage social interaction and participation will also allow for the development of social networks, social ties, social support, sense of community, community cohesion and competence, and sense of place—all



of which are important factors in determining the mental well-being of a group. When surroundings are stable, or at the very least when users are actively involved in modifying those places, a sense of community and sense of place will be more likely. Enhancing the social capital of the community's competence and sense of collective efficacy requires participation in the facility's continuous activities.

## **5 RECOMMENDATION AND CONCLUSION**

This study aims at improving inmate interaction behavior management in the design of juvenile correction center, Port Harcourt. Facilities of this nature in a country like Nigeria pays little or no attention to it. The concept was expressed through the space arrangement and functionality of the design which made the center successful. This study is proposed to serve in the establishment of Nigeria's juvenile justice system in. Through Sense of community approach members have the feeling of belonging knowing that they are important to one another and to the group as a whole because of a shared belief that the group's members' needs will be addressed as long as they stick together. Therefore, the facility's architecture should incorporate the historic meaning of the word "community." The reality of society, however, is that groups link to one another inside or outside of any territorial limit based on their common interests and abilities as a result of increased mobility and communications. The study summary is cumulated into the design philosophy which is as follows:-

1. The infrastructural needs of the end users is met with special attention to solving the architectural problems in the proposed design project of development, reform, remand, empowerment and integration.
2. Initiating Design to curb juvenile delinquencies in youths and equip them to effectively deal with peer pressures, whilst preparing them for the challenges of the society. The average youth is a very active therefore design must put up the high level of activity.
3. Design should allow for religious interaction and accord between youths with Legal and Regulatory controls
4. The design should be located such that it has access to basic service and social facilities that will provide the improvement and the security while ensuring steady development on the Nigerian young offender.
5. Provide a Juvenile Correctional facility that should combine construction / architectural precision with the provision of a very secure yet instructional, vocation and correctional facility catering for the social and penal needs of the Nigerian Young offender with skills acquisition that could be evaluated to better the inmate and turn them away from crime.

## REFERENCE

1. André, V., & Veroni, E. (2013). Juvenile adaptation to imprisonment: Feelings of safety, autonomy and wellbeing, and behaviour in prison.
2. Belejit, O. O. (2021). Examining Designs of Selected Juvenile Correctional Facilities in Nigeria: A Case Study Approach.
3. Bernheimer, L., O'Brien, R., & Barnes, R. (2017). Wellbeing in prison design: A guide. Matter Architecture.
4. Bronfenbrenner, U. (1979). The ecology of human development: Experiments by nature and design. Cambridge, MA: Harvard University Press.
5. Bukstel, L. H., & Kilmann P. R. (1980). Psychological effects of imprisonment on confined individuals. *Psychological Bulletin* 88: 469–493.
6. Chong, C. (2013) Inmate-to-Inmate: Socialization, Relationships, and Community among Incarcerated Men.
7. Connellan, K., Gaardboe, M., Riggs, D., Due, C., Reinschmidt, A., & Mustillo, L. (2013). Stressed spaces: Mental health and architecture. *HERD: Health Environments Research Journal*, 6(4), 127–168.
8. Davies, K. (2005). *Encyclopedia of Prisons & Correctional Facilities*. Edited by Mary Bosworth, Sage Publications,
9. Edwin, H. Sutherland. (2012). *Differential Association Theory*,” Florida State University.
10. Farbstein, J., & Wener, R. E. (1982). Evaluation of correctional environments. *Environment and Behavior*, 14(6), 671–694.
11. Hannah, G. (2021). Rehabilitation or punishment: an analysis of the goals, architecture and effectiveness of contemporary prisons.
12. IRB Guidebook Chapter III: Basic IRB Review.” Accessed November 7, 2012.
13. Inspectie et al, (2007). Safety in Juvenile Correction Centres.
14. Isaac D., Folorunso. (2021). The history and development of the juvenile justice system in Nigeria.
15. Irvin, W. (1974). *Men Released from Prison* (Toronto: University of Toronto in Association with the Centre of Criminology.
16. James, K. (2018). Juvenile Correctional Facility Design that Encourages Rehabilitation.
17. Jewkes, Y., Jordan, M., Wright, S., & Bendelow, G. (2019). Designing ‘healthy’ prisons for women: Incorporating trauma-informed care and practice (TICP) into prison planning and design. *International Journal of Environmental Research Public Health*, 16(20), 3818.
18. Kevin, N., Jean, M. H., & Nancy W. (1983). Improving correctional classification through a study of the placement of inmates in environmental settings

19. Kennedy, H. G. (2002). Therapeutic uses of security: Mapping forensic mental health services by stratifying risk. *Advances in Psychiatric Treatment*, 8(6), 433–443.
20. Hartman, Kenneth, E. (2010). The Huffington Post, “8 Accurate Books to Read about Life in Prison.”
21. Lee, H., *Bowker Prison Victimization*. (1980). New York: Elsevier.
22. Mulvey, E. P., & Schubert, C. A. (in press). Youth in prison and beyond. In B. Feld & D. Bishop (Eds.), *Oxford handbook on juvenile crime and juvenile justice*. New York, NY: Oxford.
23. Oostermeijer, S., & Dwyer, M. (2019). *Local time: Design guide for small-scale local facilities*.
24. Piaget, J. (1954). *The construction of reality in the child*. New York, NY: Basic Books.
25. RC Psych Quality Network for Forensic Mental Health Services. (2015).
26. Roxell, L. (2011). “Co-Offending Among Prison Inmates,” *The Prison Journal* 91.3
27. Sanne, O., Matthew D., Poni, T. (2022). Relational security: The impact of facility design on youth custodial staffs' practices and approaches.
28. Sampson, R. (in press). *Great American city: Chicago and the enduring neighborhood effect*. Chicago, IL: Chicago Press.
29. Sampson, R., Morenoff, J., & Gannon-Rowley, T. (2002). Assessing “neighborhood effects”: Social processes and new directions in research. *Annual Review of Sociology*, 28, 443-478.
30. Schwartz, B. “Deprivation of Privacy as a ‘Functional Prerequisite’: The Case of the Prison.” *The Journal of Criminal Law, Criminology, and Police Science*, vol. 63, no. 2, 1972, p. 229., doi:10.2307/1142300
31. Söderlund, J., & Peter, N. “Improving Mental Health in Prisons through Biophilic Design.” *The Prison Journal*, vol. 97, no. 6, 2017, pp. 750–772., doi:10.1177/0032885517734516.
32. Steinberg, L. (2009). Adolescent development and juvenile justice. *Annual Review in Clinical Psychology*, 5, 47-73.
33. Tighe, J., & Gudjonsson, G. H. (2012). See, think, act scale: Preliminary development and validation of a measure of relational security in medium-and low-secure units. *Journal of Forensic Psychiatry and Psychology*, 23(2), 184–199.
34. van der Helm, P., Beunk, L., Stams, G.-J., & van der Laan, P. (2014). The relationship between detention length, living group climate, coping, and treatment motivation among juvenile delinquents in a youth correctional facility. *The Prison Journal*, 94(2), 260–275.
35. van der Helm, P., Stams, G.-J., & van der Laan, P. (2011). Measuring group climate in prison. *The Prison Journal*, 91(2), 158–176.

36. Wartna, J., Tollenaar, N., Blom, M., Alma, M., Bregman IM & Essers AAM (2011)  
Recidiveberichten 2002–2008 [Recidivism rates 2002–2008]. The Hague: WODC.

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