

SPATIAL INEQUITIES: CHILD-FRIENDLY SPACES AND ETHNIC SENSITIVITY IN BALUKHALI ROHINGYA REFUGEE CAMP, COX'S BAZAR, BANGLADESH

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Abstract: Child-Friendly Spaces (CFS) are crucial architectural interventions designed to provide psychosocial support to children during refugee crises. The unprecedented influx of refugees globally in recent decades has underscored the urgent need to address children's vulnerability to psychosocial issues. Despite the widespread use of prototypical CFS models by various NGOs and humanitarian organizations to address the crises, there is a significant gap in the spatial analysis of these responses under precarious refugee camp conditions. This study focuses on CFS in the Balukhali Rohingya refugee camp in Bangladesh, the world's largest refugee camp. Children here face crises such as abuse, life-threatening situations, gender violence, and child trafficking, mirroring their experiences in Myanmar. Utilizing the Octonary Framework, a comprehensive tool for evaluating architectural spaces, this research conducts a qualitative spatial analysis of CFS. The findings reveal that CFS primarily emphasize a superficial cosmetic '*representation of childhood*', neglecting the need for ethnically sensitive spatial cultures that can address the specific needs of the displaced community. This oversight results in spaces that fail to provide the therapeutic and healing environment necessary. The research findings contribute to developing sustainable CFS practices, aiming to create a more spatially just environment for vulnerable children in future refugee crises.

Keywords: CFS, Childhood crises, ethnicity, Octonary framework, Representational Politics.

1. Introduction

Child-friendly spaces (CFS) have become a popular architectural intervention aimed at protecting and providing psychosocial support to children in emergencies. This concept has been widely utilized for children in war zones, refugee camps, disaster-prone areas, and conflict-specific regions (UNICEF, 1999). CFS is also known as a Healing Classroom (International Rescue Committee, 2011), Humanitarian Playing Lab (BRAC, 2019), and Safe Space (Save the Children, 2008). Scholars have different definitions of CFS, but they all emphasize providing psychosocial support for children in various types of childhood emergencies. The target community supports the activities organized in CFS, which are participatory and carried out in a safe, child-friendly, and stimulating environment (CPWG, 2012). The main goal of CFS is to promote the resilience and well-being of children who have experienced different childhood crises.

The most recent military crackdown in Myanmar started on August 25, 2017 (Milton, 2017). Myanmar military burned down scores of Rohingya villages and attacked unarmed men, women, and children (Beyrer, 2017). The unprecedented persecution has forced over 7,45,000 Rohingya to escape Myanmar and seek safety in refugee camps in Bangladesh's Cox's Bazar (Zafari, 2020), where 65% were children. These Children, especially female children, undergo crises such as abuse, life-threatening situations, gender violence, and child trafficking, mirroring their experiences in Myanmar. A large number of CFS have been made to mitigate the psychosocial crises of the children. In most cases, various NGOs and humanitarian organizations make CFS following a prototypical CFS model, which was followed for the CFS in Mozambique flood response (Hossain, 2023).

UNICEF established the first CFS in Albania in April 1999 in response to the children during the Kosovo conflict (Wang, 2010). It was also used to respond to the 1999 earthquake in Turkey. Subsequently, CFS became a more common architectural instrument for responding to emergencies and has been built in various countries including Angola, Chad, Colombia, East Timor, El Salvador, Gujarat - India, Bam - Iran, Lebanon, Liberia, Northern Caucasus - Russia, Occupied Palestinian Territories, Pakistan, Somalia, and Syria. After the Tsunami in 2004, many humanitarian organizations, including UNICEF, built CFSs in Aceh, Indonesia, Sri Lanka, and Southern India (Kostelny & Wessells, 2008).

In various emergencies, CFS addresses specific psychosocial crises children face, with each situation being unique to its context. The psychosocial challenges encountered by Rohingya children differ significantly from those in other emergencies. The Rohingya people possess a distinct ethnic identity and a rich historical culture. This paper aims to identify why a prototypical and out-of-context model for CFS is applied, overlooking the need for ethnic sensitivity. Although CFS is a

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supportive architectural space, there needs to be more spatial analysis regarding CFS in the precarious conditions of Rohingya refugee camps, which will also contribute to the existing CFS literature. Therefore, the primary objective of this study is to critically assess the spatial aspects of CFS in the Balukhali Rohingya refugee camp.

2. Methodology

The study will analyze CFS 223 from Camp 20 extension (selected as a case on a random basis) following the case study methodology with a qualitative approach. According to Robert Stake (1998), a case study methodology is characterized by an interest in individual cases and aims to capture the complexity of a single case. The central feature of this methodology is the depth of analysis it offers, achieved through the combination of different methods to analyze a rich information case from various angles to obtain generalized findings. CFS is not only an architectural space but also a space for psychosocial healing. So, the study's objective, analyzing CFS's spatial lens needs a framework that could analyze both the CFS's social and spatial lens. So, the study applied the Octonary Framework – comprehensive tool for evaluating architectural spaces from a socio-spatial lens that was developed by Buthayna Eilouti. The framework's eight stages include geometry, layout, contextual fit, style, surface treatment, systems, peripherals, and graphics.

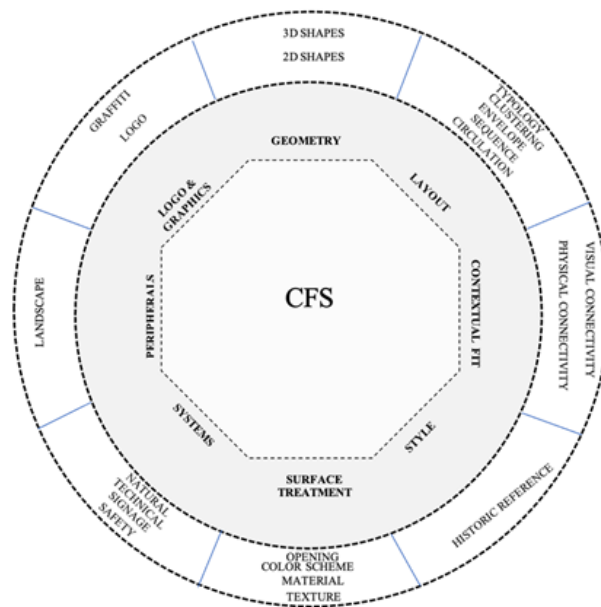


Figure 1, Octonary Framework for CFS's spatial analysis
(Source: Eilouti, 2017; interpreted by Authors)

Geometry, looks at the CFS's geometric characteristics in comparison with the surrounding built forms. Layout, examines the CFS with five parameters: topology, clustering, enclosure, sequence, and circulation. It aims to understand the broader zonings and functional flows, the relationship of the CFS and its cluster, the relative proportion of solid and void (openings), the chronology of functions from cluster and built-form level scale, surrounding built-form and CFS's relationship. Contextual fit, explains how the CFS fits within the existing street network and surrounding context. Style, analyzes the CFS's archetype in terms of the historical reference – Arakanese Vernacular style. Surface treatment, discusses the materials, texture, and colour schemes of the CFS. System, explores the lighting and ventilation process of CFS. Peripherals, focuses on the landscaping components. Logo and Design deals with the graphical aspects of CFS.

The investigation has collected different types of qualitative data, including visual research data and interviews. To conduct the octonary framework's spatial analysis, visual research data, such as CFS plans, elevations, sections (at cluster and built-form level scale), and photographs have been collected. Besides visual data, Interviews of Rohingya children and caregivers help make arguments for the study. According to Islam (2016), middle childhood (7 to 12) is a crucial time. Additionally, female children are the victims of camp-specific childhood crises. Based on this, the target group of the study are female children aged 7 to 12.

3. Findings

The Balukhali camp is situated between the Kutupalong and Shamlapur camps, and it is the second-largest Rohingya refugee camp in Bangladesh, consisting of 16 separate camps. The study which focused on the Camp 20 Extension (E) in the Balukhali extension area, was established in 2019 and is considered a model camp. Camp 20 E has a total area of 190 acres and is divided into two blocks: A, and B, with each block serving as a means to provide relief or aid. Each camp is led by a *Majhi*, who acts as the community leader and formal coordinator between the community and other agencies, with different sub-

Majhis depending on the number of blocks. The total population of Camp 20 E is 6188 (Chowdhury, 2018), with 1495 households, and 54% (3358) of the population being children. Among the child population, 49% (1638) are female children. Of the female children, those between the ages of 7 and 12 make up 43% (696) of the total female child population. Seven CFS are present in Camp 20 E. One of these, labelled CFS 223 is the selected one for the study, was established in 2019 by an international NGO (INGO) called Relief International, with support from the donor UNICEF and the NGO BRAC. It is situated in Block A and covers a total area of 1250 square feet (50ft X 25ft). CFS 223 assists 60 children, aged 2 to 18, across three different shifts, including 30 female and 30 male children. Additionally, twelve female children between the ages of 7 and 12 are currently attaining CFS 223.



Figure 2, CFS 223 and its surroundings

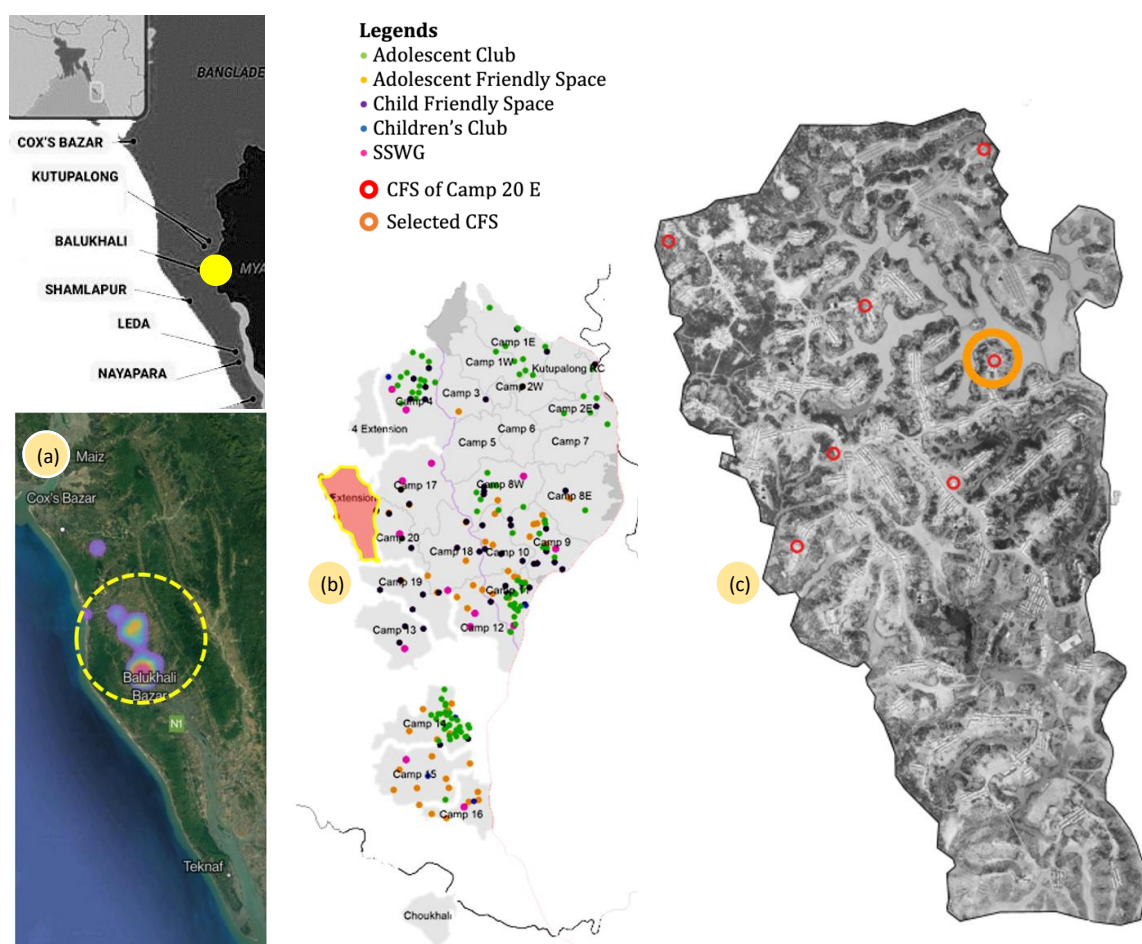


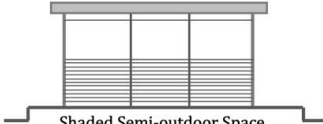
Figure 3, (a) Balukhali camp location map, (b) all camp plan (with child protection structures)
(c) Camp 20 Extension plan with selected CFS (Source: Authors and Field Survey, 2023)

3.1. GEOMETRY

Around the CFS, there are three types of built forms: housing units, CFS, and community storage (Table 1). The blue shape represents the community storage facility – a semi-outdoor space used for storing relief items (Table 1: Right column). The housing units, depicted by the black forms, are residential spaces for Rohingya families (Table 1: Left column). These houses have no windows, only doors. The red form represents the CFS with limited openings and a restricted veranda space (Table 1: Middle column).

According to the standard international guidelines, INEE requires that CFS be highly inclusive in times of emergency (INEE, 2011). CFS and housing units have a strict geometric layout that restricts their interaction with the outdoors. The female children are experiencing psychosocial crises as a result of the camp environment. Additionally, the camp is enclosed by a barbed wire fence, evoking memories of their confinement in Myanmar. Furthermore, the rigid structure of the CFS is triggering psychological trauma in the children.

Table 1: Geometric pattern of CFS 223 and surrounding built-forms (*Source: Field Survey: 2023*)

Household (Private)	CFS (Child-Friendly Space)	Community Storage (Public)
		
		
No Opening	Limited Openings	Shaded Semi-outdoor Space
		
No Opening	Limited Openings	Shaded Semi-outdoor Space

3.2. LAYOUT

Layout is the second stage of the Octonary Framework, which analyzes CFS with five parameters: Topology, Clustering, Enclosure, Sequence, and Circulation.

3.2.1. Topology

The topology assesses the compactness and connectedness of a form or space (Allahmoradi, 2021). CFS 223 includes two primary programs: CFS and CFS office (Table 2, Figure a). The CFS office is a small partitioned space (Figure 4). CFS comprises a multipurpose space, which is a compact area with play, singing, and drawing corners (Table 2, Figure a). The CFS authority believes that this single space greatly enhances the creativity of Rohingya children. Rohingya children enjoy playing football. The topological layout is very indoor-centric and cannot accommodate football, which is why children are seen playing football outside the CFS.

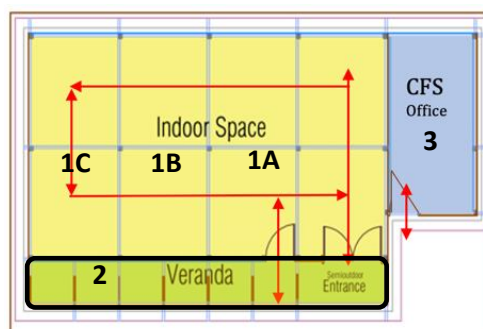
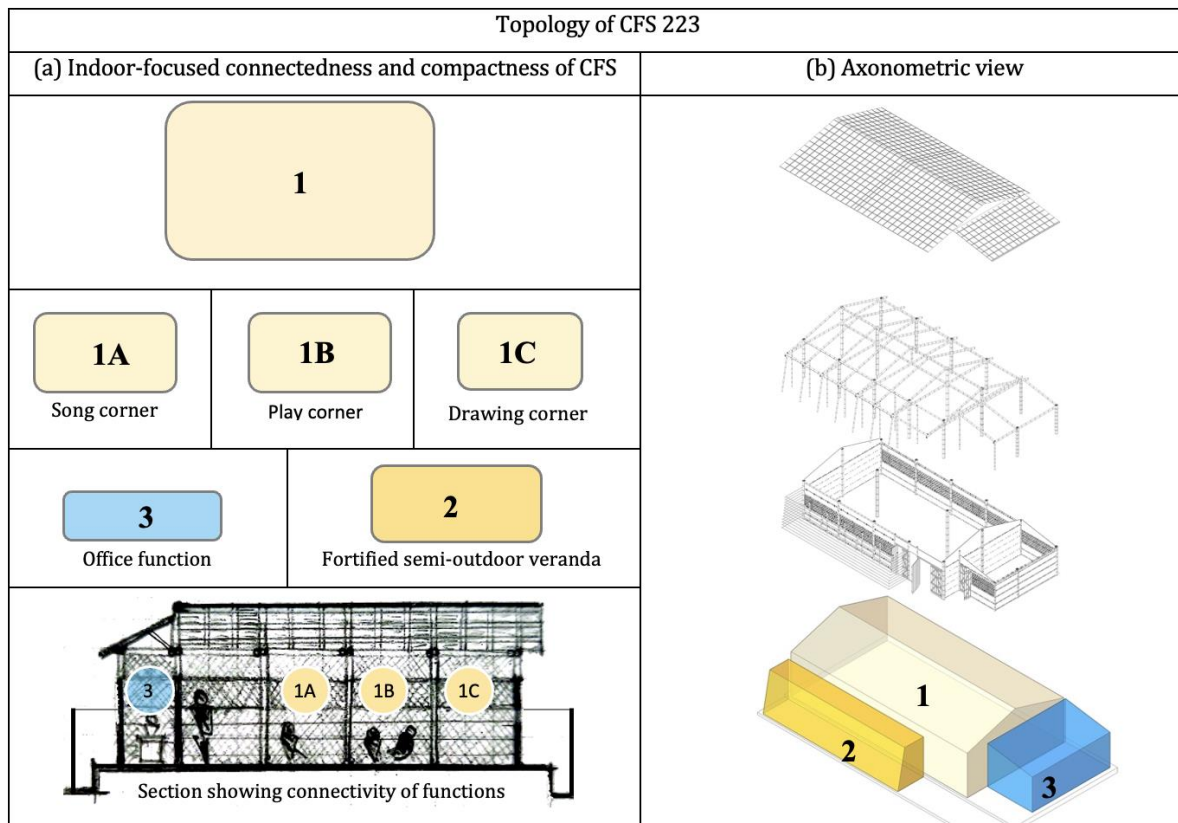


Figure 4, Architectural plan of CFS 223 (*Source: Authors*)

Table 2: Topological analysis of CFS 223 (Source: Authors)



3.2.2. Clustering

The CFS and its surroundings establish part of a ribbon-shaped cluster (Heirman, 2013). The level of active functional interaction between built-forms and the street determines the strength of this type of cluster. The yellow line represents the main street of the selected cluster (Figure 5, b), where CFS, housing units, open space, and street nodes emerge with the street. The architectural section of the street highlights the frontage of CFS with the street (Figure 6).

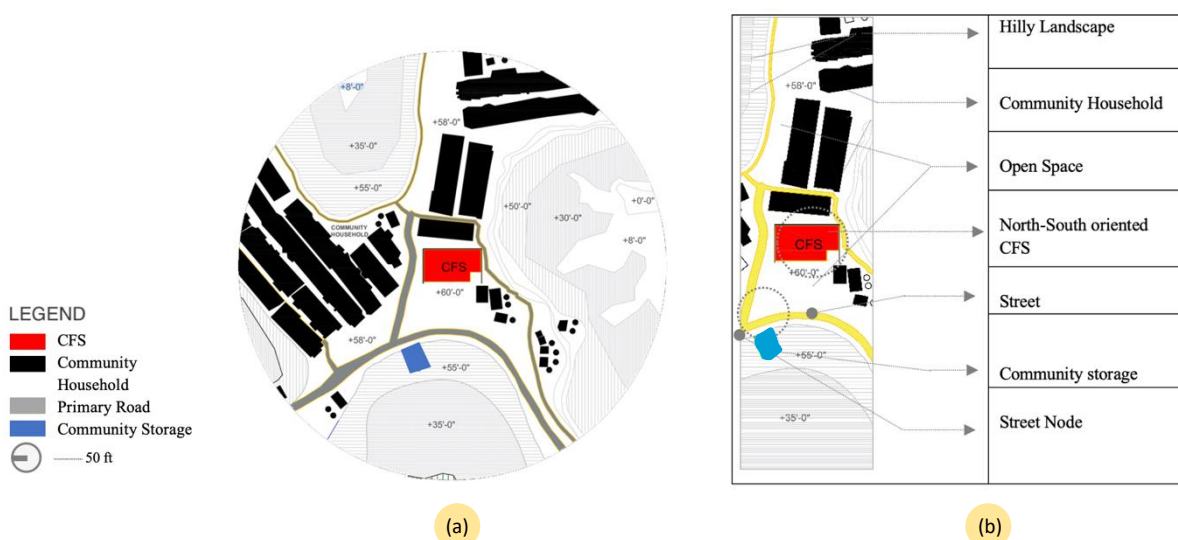


Figure 5, Cluster of CFS 223 and its surrounding built-forms (Source: Authors)

In front of CFS, there is an open outdoor space which serves as both a playground for children and a community space for the camp residents. This space creating an active social environment by connecting nodes with primary or tertiary nodes (Boeing, 2019). The effective use of the ribbon-type cluster contributes to the active social interactions in this open playground. However, CFS seems to overlook the inclusive nature of the cluster, indicating a bias towards a conservative approach. This conservative approach contradicts the social inclusiveness within the cluster, creating a negative mindset

among female children, making them feel constantly under surveillance and monitoring like panopticon concept (Jespersen et al., 2007).

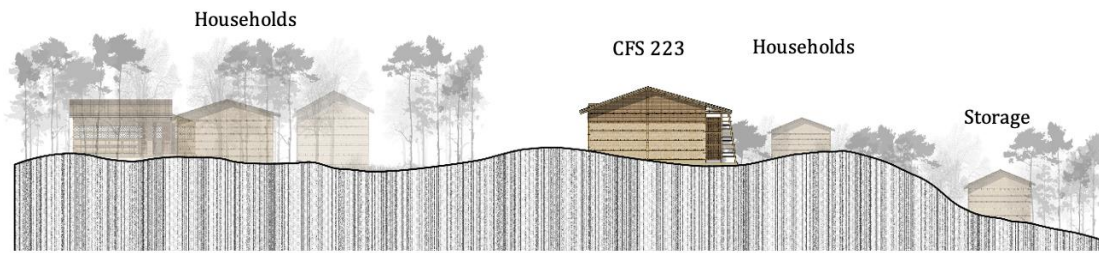


Figure 6, Section of ribbon-shaped cluster including CFS 223 and its surroundings (Source: Authors)

3.2.3. Enclosure

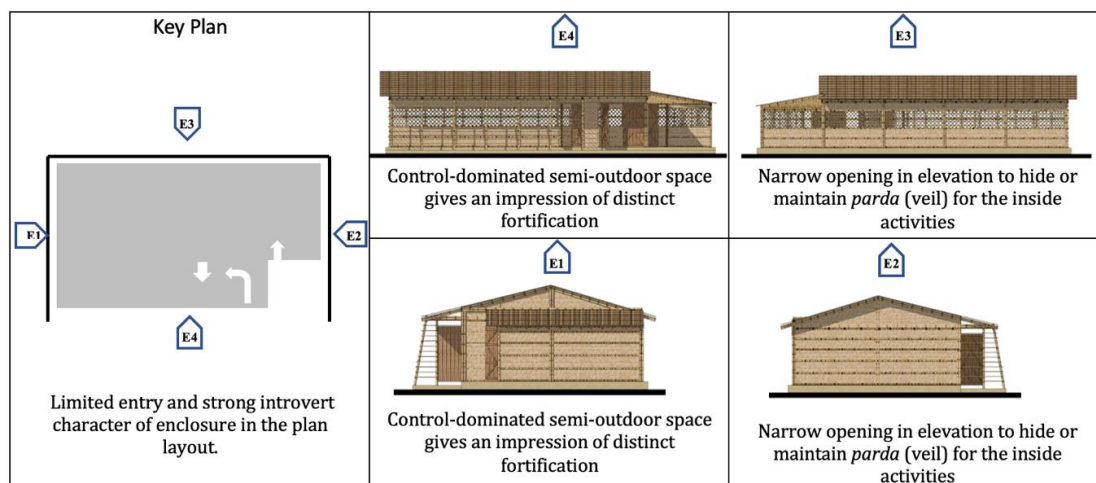


Figure 7, Enclosure detail of CFS 223 (Source: Authors)

E1, E2, E3, and E4 are the four enclosures/facades (Figure 7, Key Plan) that facilitate the indoor learning and playing activities of CFS 223. E1 and E2 feature solid walls without any openings, while E3 has small perforated windows at adult eye level. These windows allow CFS instructors to see outside, but are positioned high enough that children cannot see out. E4 faces the street and comprises two doors and a controlled veranda with bamboo grills (Figure 7, E4). Essentially, the CFS, with its enclosures, provides a controlled space that is reminiscent of the concept of the burqa (the religious veil worn by Muslim women) as demonstrated by Rohingya women. This creates a juxtaposition with the openness of the CFS.

3.2.4. Sequence

The sequence parameter shows the spatial relationship between activities of CFS at the built-form level-scale (Figure 8, a) and outdoor relation between CFS and other built-forms considering the street as primary connector at cluster-level scale (Figure 8, b). The functional flow chart illustrates the well managed linear relationship between the CFS functions (Figure 6, a). In cluster-level scale, the street section demonstrates a socially connected neighborhood (Figure 8, b).

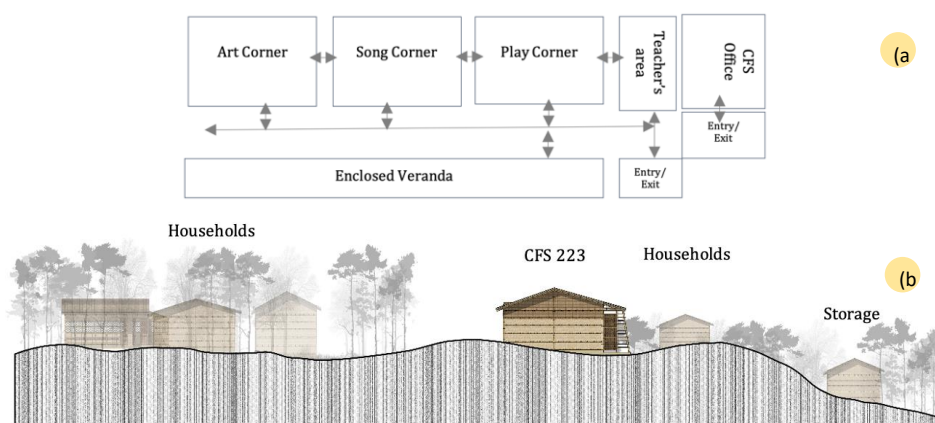


Figure 8, Showing spatial sequence of CFS (a) Sequential flow chart at built-form level-scale (b) street section shows the CFS and built-form's inactive frontage (Source: Authors)

3.2.5. Circulation

The main street network within the camp settlement is highlighted in yellow (Figure 9, b). Three key streets are labelled as S1, S2, and S3 (Figure 9, a). The community storage and CFS 223 have direct access to street S1 (Figure 9, a). CFS 223 is located at a walkable distance from the cluster, that highlights well accessibility within the cluster. Street S2 runs east to west, connecting S1 and S3, and has nodes N1 and N2 at its ends (Figure 9, b).

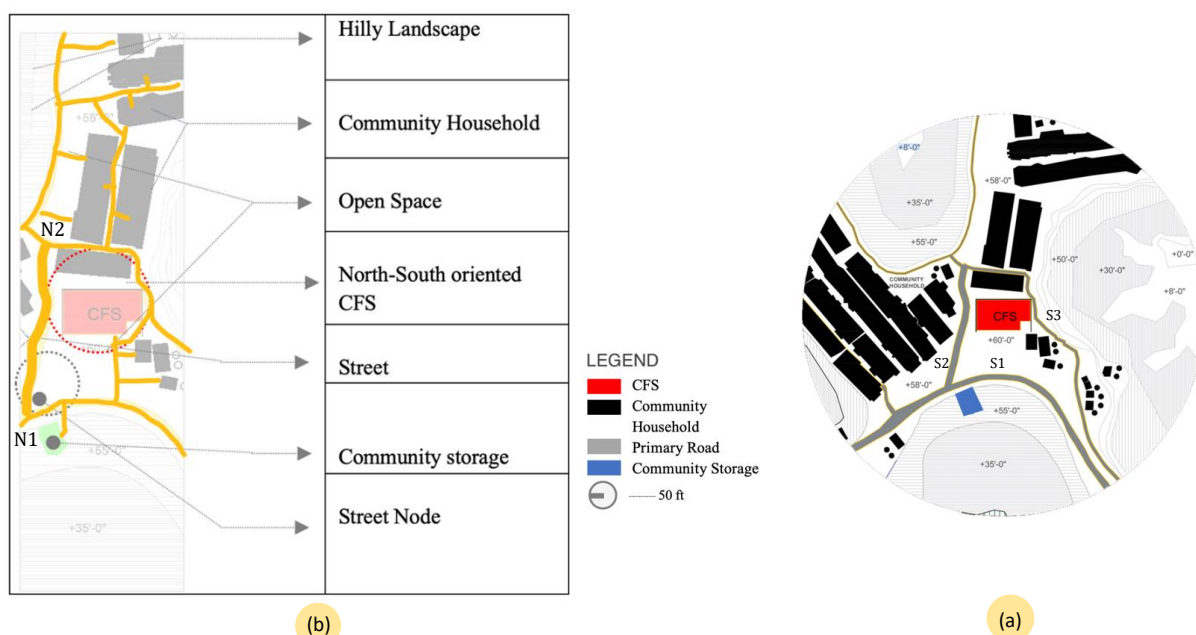


Figure 9, Street – circulation network at the cluster level (Source: Authors)

The streets are designated for pedestrian use, serving as community gathering spaces. Tertiary streets are setbacks between two housing units. As a whole, the circulation pattern creates a good scope for accessibility at community scale (Figure 10).

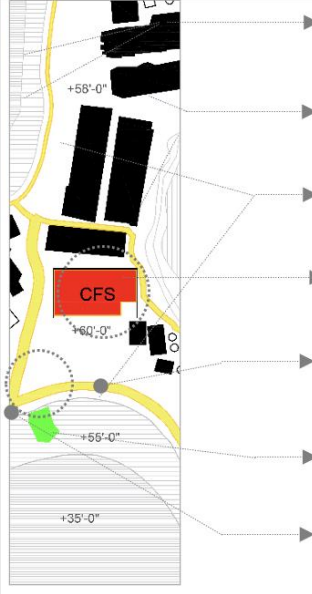
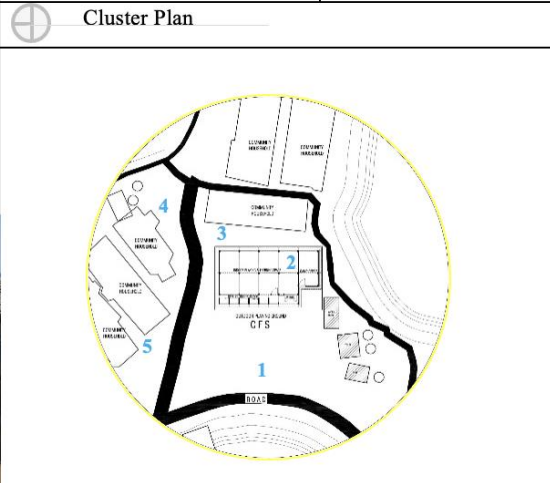


Figure 10, Circulation of CFS at community scale (Source: Field survey, 2023)

3.3. CONTEXTUAL FIT

CFS 223 is situated in a hilly area, 70 feet above ground level, which was previously a reserve forest of the government of Bangladesh (GoB). The CFS is surrounded by hills on the south, west, and east sides (Table 3 and Figure a). The CFS and its cluster were constructed by levelling a large hill, ignoring the hilly context. During the daytime, the tertiary roads passing through the housing units are inactive (Table 3, Figures 4 and 5), while the courtyard between the camp houses serves as an active social space for the residents (Table 3, Figure 3). N1 is more active than N2 among the two nodes (Table 3, Figure b, 1, 4, 5). The CFS and its context have the potential to take advantage of the hilly topography and conserve the green forest, making the CFS more oriented towards outdoor nature. This could create a good indoor-outdoor relationship, which is very important for the child-friendliness of a CFS.

Table 3: CFS 223 and its immediate context: (1) (2) open space in front of CFS used for children playing and respiratory space (3) active courtyard between camphouses (4) inactive tertiary road within camphouses (5) inactive node

CFS's frontage (open space) acknowledges the need of children			Hilly Landscape
Frontage of CFS fortification for control dominated connectivity			Community Household
Good courtyard centric connectivity from the street			Open Space
Linear connectivity among homesteads: inactive social space			North-South oriented CFS
			Street
			Community storage
			Street Node
			

3.4. STYLE

As per "Arakanese Vernacular Style" (d'Hubert, 2018), the architectural style of Arakanese *iskul* consists of 'U' pattern built-forms that provide a central courtyard for children's activities. CFS 223 is a single form located between three surrounding streets (S1, S2, S3) and has an open field in front of the entrance. The CFS facade has a few smaller openings, while the *iskul* facade has larger openings. *Iskul* is interactive with the outdoor courtyard, whereas CFS keeps itself hidden from the outdoors.

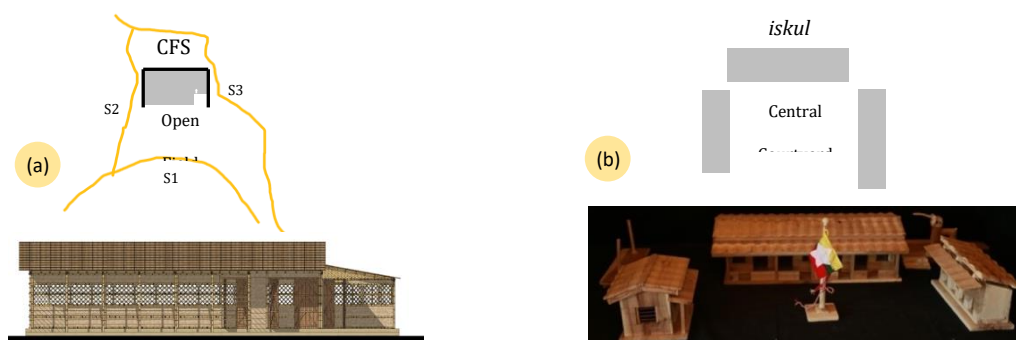


Figure 11, Built-form style: (a) CFS 223 and (b) Arakanese "*iskul*" (Source: Authors, d'Hubert)

3.5. SURFACE TREATMENT

The CFS utilize locally available materials like bamboo, straw, and polythene sheets for the walls, roof, and internal roofing. Since all the building materials are flammable, there is a fire hazard threat for the people in the camp. Thus, enamel paint is used to replace the burnished *chatai* (bamboo walls). INGO Relief International has painted the external facades of the CFS with multiple colours: green, yellow, red, blue, and orange (Figure 12). The roof-cornice colour is orange, while the wall colour is represented by the other colours. By painting the walls, the NGO has given the CFS a cosmetic makeover, making it appear colourful and child-friendly. The study suggests that these colours represent INGO Relief International's official logo metaphorically. NGOs have used colour as a commercial tool to promote their brands. However, they might consider using colour as a tool to aid in the psychosocial healing of trauma-affected children.

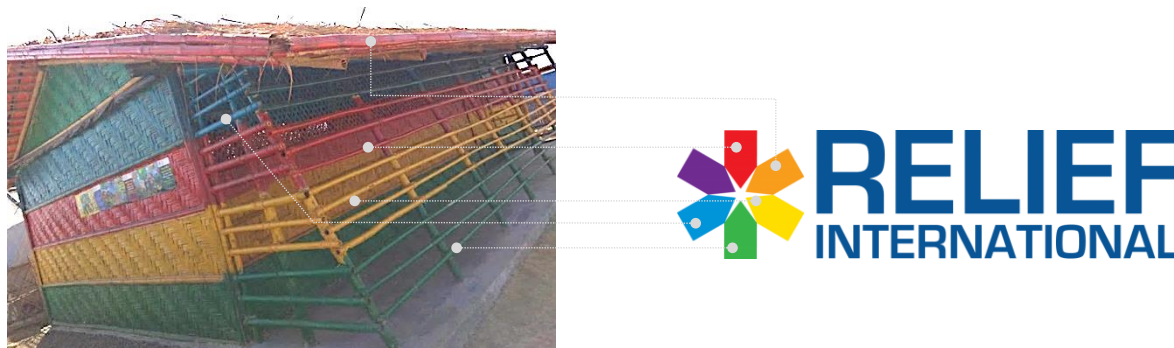


Figure 12, Cosmetic makeover of CFS following donor NGO's official logo (Source: Field survey, 2023)

3.6. SYSTEMS

The CFS has a passive cooling system for ventilation, but it traps a lot of heat because of inadequate openings and a tarpaulin roof. They use a stand fan to help with the heat. A senior officer from a well-known INGO mentioned that the reason for the lack of proper ventilation was to protect the privacy of female children during an interview. According to him,

Girls over ten years of age face difficulties in accessing CFS. Families and caregivers are concerned that CFS instructors do not take into account the religious beliefs of the ethnic community. As a result, the CFS allows very limited visibility from outside to ensure privacy for children's indoor activities.

The fact that the CFS restricts access to the space without making it visible to camp residents is concerning. Furthermore, the surrounding boundary wall, ostensibly for children's safety, is actually used for demarcating the CFS's border rather than for ensuring child safety. So, under the veil of privacy CFS creating an uncomfortable atmosphere for the children that affect their psychological development

3.7. PERIPHERALS

The surrounding landscaping is the main focus of the peripherals. CFS 223 is approximately 60 feet above the ground and is located on steep terrain with forest trees cove ring steep contours. A new periphery has been established, leading to a rapid decrease in greenery. Some housing units next to the CFS feature greenery on their roofs (Figure 13). Recently, various NGOs have taken initiatives for tree plantation with foreign aid. The cutting down of previous dense forests and the recent initiative of tree plantation are contradictory. However, CFS with its peripherals has strong potentiality to be a green open platform for psychosocial healing.



Figure 13, Peripherals of CFS 223: (a) Green vegetation and (b) Barren Street (c) Contours and greenery (Source: Field Survey, 2023)

3.8. LOGO AND GRAPHIC DESIGN

Similar to the external walls, Donor NGO painted the indoor walls of the CFS according to their official logo colours (Figure 12). NGO staff and CFS instructors have expressed concerns that NGOs prioritize branding over the space's intended purpose of providing psychosocial support for children, even if the colours used are not child-friendly. This practice is referred to as

the "politics of representation" (Santos, 2008). The children at the CFS drew floral graffiti. A CFS instructor mentioned that drawing floral graffiti is a form of psychosocial treatment that can help alleviate war trauma. However, it is only a temporary bounce-back solution for childhood crises (Dhar, 2017) and CFS is not dealing with the female children's everyday trauma rather creating surveillance.

4. Discussion

Child-Friendly Spaces (CFS) was intended to be a pivotal architectural intervention to address the psychosocial needs of children in the Balukhali Rohingya refugee camp, focusing on creating a child-friendly and culturally sensitive environment. The literature on CFS also underscores the importance of these spaces being inclusive of gender diversity, culturally responsive, and interactive with good indoor-outdoor environments. These spatial attributes are crucial in refugee camp settings globally, where the need for safe and supportive spaces is acute.

Table 4: Synthesis of the spatial analysis of CFS 223 following Octonary Framework (Source: *Authors*)

Parameters (Octonary Framework)		Key Feature	Spatial Code	Child Friendly Code (By assessing the CFS)	
Geometry		Limited opening (Windows)	Detached/isolated space (From outdoor)	Restricted	
		Fortified veranda		Not inclusive	
Layout	Topology	Multifunctional single space for play, singing, and drawing activities	Compact indoor focused space	Indoor - centric	
		Children prefer outdoors	Indoor dominated space		
	Clustering	CFS, households, open space, and street nodes emerge with the street	Ribbon-shaped cluster	Good social interaction	Inclusive
		Inclusive open outdoor space in front CFS	Social interaction space for camp people		
		CFS overlooks the frontier outdoor playground	Intentional spatial confinement	Surveillance	Panopticon concept
	Enclosure	Metaphoric <i>burqa</i> representation through CFS walls	Restricted indoor-outdoor relation	Controlled	
		Rigid enclosure detaches the CFS from surroundings	Introvert enclosures		
	Sequence	four types built-forms (Cluster-scale)	Pedestrian links built-forms (cluster- scale)	Socially connected neighbourhood	
		Linear and horizontal spatial flow between functions (Built-form scale)	Friendly functional involvement	Introvert planning	
	Circulation	All built-forms have direct access	Street invites CFS	Good accessibility scope	
		CFS is within reach from community	Inclusive zoning of CFS		
Contextual Fit		CFS site is a triangular space formed by three surrounding streets	Site seamlessly integrates with the hilly context	Deforested context	
		Node N2 is more active than N1	Node creates social space		
Style		CFS overlooks Arakanese <i>iskul</i> , a built-form in ethnic Arakanese style	Introvert style	Cage-like Space	
		CFS remains hidden indoors	Prison-like design		
Surface Treatment		Use of locally available material	Sustainable approach	Commercial aspect	
		INGO painted the exterior CFS walls with the brand's signature colors	Colour as a tool of Cosmetic makeover		
Systems		Inadequate openings cause a suffocative atmosphere	Not a child-friendly environment	Uncomfortable	
		CFS hides indoor activities under the veil of safety	Not inclusive with the camp-context	False privacy	
Peripherals		Built-form dominated periphery	Introduction of new periphery	Deforested landscape	
		Ignores the previous site context – forest.	Super-imposing architecture		
Logo and Graphic Design		Significant representation of the INGO Relief International's logo in all indoor surfaces	Politics of representation	Cosmetic makeover	

However, the Balukhali refugee camp case reveals a gap between their intended purpose and actual impact. Table 4 provides a detailed synthesis of the spatial analysis of CFS 223 employing the Octonary Framework's eight parameters. The analysis exposes how CFS, while representing a child-friendly cosmetic impression, fails to actualize their potential and becomes a restrictive form amid its surroundings. The analysis outlines the CFS design's critical shortcoming: the layout creates an isolation that limits spontaneous interaction with the community at the cluster level. The isolation is problematic in a refugee camp context, where social connections and community engagement are vital for the psycho-social healing of the children. The layout also aligns with Jeremy Bentham's panopticon concept (Pease-Watkin, 2003), where surveillance becomes a consistent feature in CFS, particularly for the female children.

In the context of the refugee camp, the sense of community and shared spaces is often an important source of comfort and psychological support. However, the panopticon-like design creates an opposite environment where female children's freedom of movement is severely restricted. This also limits their physical mobility and stunts cognitive and social behavior. The pervasive sense of being watched can lead to heightened anxiety, diminished self-expression, and a reluctance to engage with others in public spaces. The continuous surveillance at the camp's community level thus produces an environment where female children are seen to be notably scarce in public spaces, particularly in primary streets. Jansson et al. (2022) identify key parameters for evaluating a child-friendly environment, including open space, access, safety, involvement, social connection, play, freedom, and learning. When evaluating CFS 223 against the Octonary Framework, it becomes evident that the current design exhibits a cage-like form feature, often justified on the grounds of children's safety, yet contributes to reinforcing a sense of disconnection from the natural environment. While various indoor activities have been designed to be available, the restrictive nature of the space impedes their effectiveness in psychosocial healing. In such cases, the built models contradict the core CFS guidelines that emphasize inclusivity with the community. Cosmetic enhancements, including the colourful makeover of external and internal walls by NGOs, often serve more as superficial 'child-friendly' gestures rather than substantive improvements. These aesthetic changes, rather than addressing the deep-seated psychological trauma experienced by the children, may inadvertently create an atmosphere of confinement.

In response to this dire need, the establishment of Child-Friendly Spaces (CFS) has been widely practiced in the camp as a therapeutic intervention to support children dealing with psychological challenges and to help them build resilience. However, a critical review of the implementation of CFS in the Balukhali camp reveals a gap between the intended objectives and the actual outcomes. The current approach by NGOs does not fully address the complex needs of the children, resulting in interventions that are often too rigid. Using the Octonary Framework, the paper has identified significant limitations in the current model. Despite focusing on one case study, the findings suggest a trend of confinement within the CFS structures, which can have a significant impact on the psychological development of refugee children, particularly female ones. This confinement isolates the CFS from its surroundings and raises concerns about the potential exploitation of such models for profit.

5. Conclusion

In the Balukhali camp, there is a growing concern about the Rohingya children facing the risk of losing their ethnic identity. This situation may lead to them becoming a "lost generation" without strong cultural connections. The children have been forced from their homeland and exposed to traumatic experiences, which has a long-lasting impact on their future. This situation underscores the need for an approach that aligns with Sustainable Development Goal (SDG) 11, which advocates for the development of cities and human settlements that are inclusive, safe, resilient, and sustainable. The study finds that the superficial external makeovers of CFS is the outcome of the application of prototypical CFS model that makes CFS a one-stop-shop for money making instead of psychosocial resilience (key objective of CFS).

The global refugee crisis has led to a large number of children experiencing psychological distress, and this situation is not expected to improve in the near future. While various psychosocial frameworks are used to assess children's mental well-being in refugee camps, there is a lack of a suitable spatial model for evaluating child-friendly architecture. This research aims to fill this gap by employing a spatial framework dedicated to assessing the effectiveness of CFS. Although this type of approach is rarely used in refugee camp settings, the proposed architectural framework shows promise in comprehensively evaluating CFS implementations in emergency or conflict scenarios. Ultimately, this could contribute to the establishment of successful CFS models that pave the way for a brighter future for children residing in refugee camps globally.

6. Acknowledgements

In order to maintain the integrity of the qualitative research, fictional names have been used to protect the identities of the interviewees. The authors are grateful to all research participants, CASR, AUST and BUET for their kind support in conducting this research.

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