

# Refugee Architecture for Childhood Crisis: Concept, Politics, and Transformation of CFS in Balukhali Camp, Cox's Bazar, Bangladesh

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## Abstract.

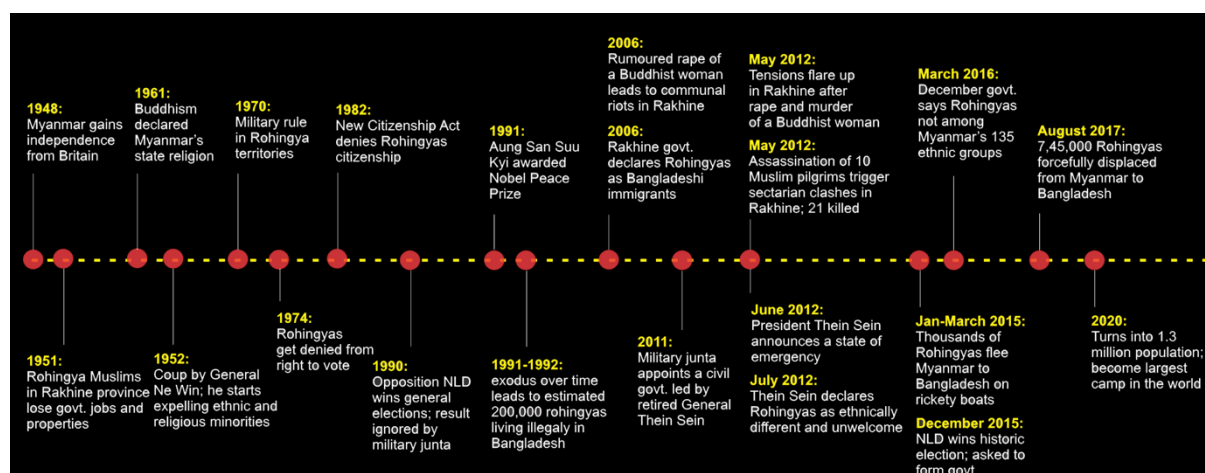
In response to ongoing interethnic conflict and violations of basic human rights, more than 26 million people reside in camps around the world as refugees, with children suffering the most due to a major childhood crisis. Bangladesh alone has taken in 7,45,000 Rohingya refugees since August 2017 as a result of the brutal ethnic violence committed by the Myanmar army. The world's largest refugee camp, Cox's Bazar, Bangladesh, now houses 1.3 million people, an increase of just five years. Children who experienced the extreme atrocities of cultural genocide in Myanmar make up about 60% of the population. Numerous Child-Friendly Spaces (CFS) have been created, mainly in the Balukhali camp, as an immediate reaction to their psychosocial childhood crises. In order to address the childhood crises of refugee children, this research provides a critical analysis of the concept, politics, change, and role of CFS. In three refugee camps in Cox's Bazar's Balukhali Extension, it is subjected to an extensive qualitative investigation of CFS. The study will concentrate on the years 2017 to 2022 and explore whether the CFS has transformed from its original goal of offering comprehensive psychosocial resilience to traumatized children to a bounce-back approach for child protection. Additionally, it will investigate if the complicated camp politics centered on ethnic identity, which presents significant challenges to child-friendly spatial practices, have a major impact on CFS's transformed spatial model. One of the most important areas of research is into why the CFS underwent such transformations and how the CFS idea has evolved in light of the new difficulties and crises of camp life. While community mobilization, particular conflict, gender security, violence, etc., have frequently been linked to the spatial transformation of the CFS (in camps) in literature, the socio-spatial elements that lead to a camp have been remarkably understudied. By exploring the spatial transformation of CFS at the cluster and built-form level scales and examining the socio-spatial processes driving such changes, this research seeks to fill that void. An investigation of this kind will surely provide a crucial understanding of how architecture might combat various violence and insecurity in a camp of displaced people surrounded by rhetoric that portrays a life of emergency.

**Keywords:** Childhood Crisis, Psychosocial Resiliency, CFS, Transformation, Balukhali Camp.

## 1. Introduction

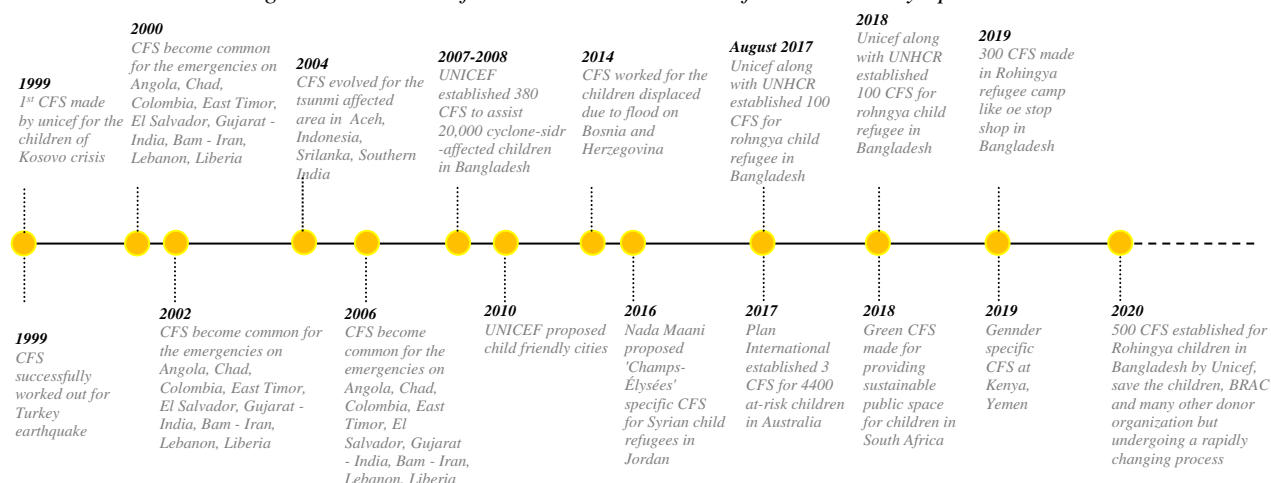
Historically Rohingyas are evicted from their vita due to religious discrimination in Myanmar. For building a mono-religious Buddhist nation, Rohingyas faced deliberate deprival of being citizens of Myanmar. They were a marginalized community among 26 ethnic groups in Myanmar (Chowdhury, 2020). Rohingyas were displaced to Bangladesh due to get displaced in Bangladesh through six main periods: 1978, 1992, 2001, 2009, 2012, and 2017 (Ullah, 2011). The last military crackdown in Myanmar started on Aug 25, 2017(Milton, 2017). The Myanmar military reportedly burned dozens of Rohingya villages and fired indiscriminately at unarmed men, women, and children. The unprecedented crackdown has sent more than 7,45,000 Rohingya to flee Myanmar and seek forcefully displaced in refugee camps in Bangladesh's Cox's Bazar, where 60% of the population is children (Zafari,2020). Bangladesh's government also appeared reluctant to identify the Rohingya as "refugees," preferring the terminology "Forcefully displaced people from Myanmar" (FDMNs) (Rashid, 2020). CFSs have become widely used to protect and give psychosocial bolster to children in emergencies (Save the Children, 2008). A timeline of CFS shows major years and key historical events which will increase CFS's popularity in refugee situations. The research aims to critically evaluate how the CFS as a spatial concept has been evolving from 2017 to 2022 with respect to the rightless condition of the Balukhali Rohingya refugee camp.

Figure 1: Timeline of Historic Eviction of Rohingya



Source: (Sutori, 2020)

Figure 2: Timeline of the historical evolution of Child-Friendly Space



Source: (Authors)

## 2. Method

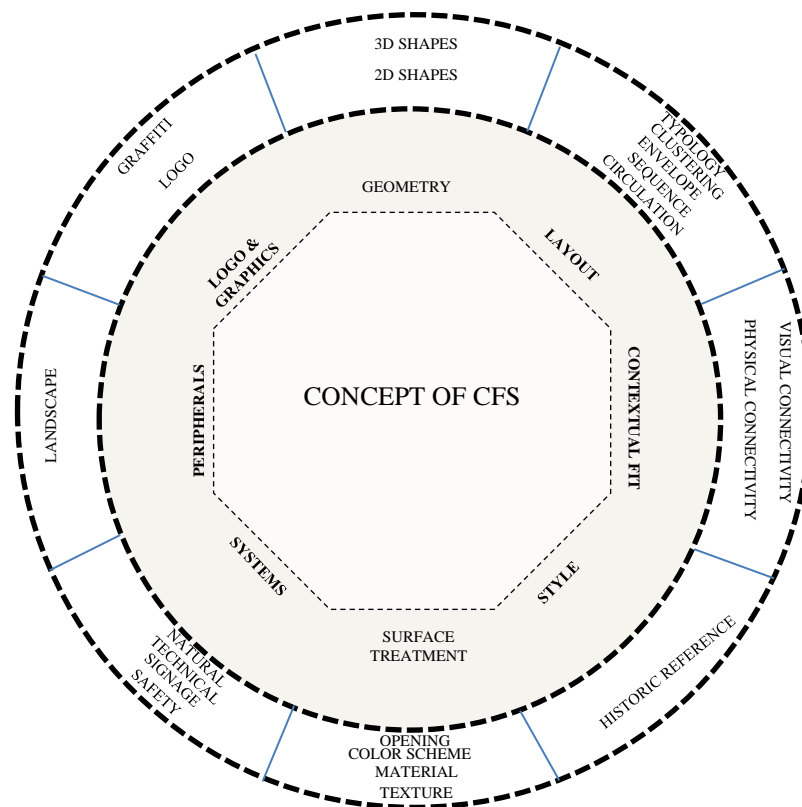
It is naturally exploratory (Reiter, 2017) and relies on qualitative research data. The research

has adopted an interdisciplinary approach, combining the analytical methods of two disciplines: Architecture and Anthropology. Visual research method (From architecture) and critical ethnography (from anthropology). The Octonary Framework (Eilouti, 2018) has been employed to define and map the changes (spatial) of the concepts of CFS, and Gibson's Visual perception theory (Gibson, 2002) helps to understand the children's perspective. Gibson's Visual Perception Theory states,

*"Perception is the idea that we perceive simply by using the information we receive through our senses, and this is enough information to make sense of the world around us."*

A physical site survey was conducted in the Balukhali extension area at Cox's Bazar to identify a potential camp to study among a larger number. One (01) camp: camp 18, was selected using purposive sampling. The physical survey was done in three timeframes: 2018, 2019, and 2022 to understand the CFS's spatial transformation and stakeholders of CFS. Then for selecting a CFS as a case, the case study method (Fidel, 1984) was followed to facilitate the exploration of a real issue – the transformation of CFS within a defined camp context at three timeframes: 2017- 2018, 2019 – 2020, and 2020 – 2022.

Figure 3: Octonary Framework for concept analysis



Source: (Authors)

### 3. Results and Discussion

Balukhali camp is the second-largest Rohingya refugee camp in Bangladesh. Camp no 3 to

Camp 20E is under the area of Balukhali camp. It sits beside the Balukhali pan Bazar, between the Kutupalong and shamlapur camps at Cox's Bazar, Bangladesh. 'Balukhali pan bazaar' is just before the entrance of the camp. This space carries significance for the camp dwellers because they are allowed to serve the market as *mute*<sup>1</sup> unofficially.

Four agencies: i) the Donor, ii) NGO, iii) Invisible Syndicate, and iv) *Majhi*; are the key stakeholders of CFS. They are the decision-makers of CFS with different agendas. The first significant stakeholder of CFS and all sectors are international donors. The host country, Bangladesh, has given space to shelter the refugees with the monetary support of donors. Donors split the funds under different sectors. In the Rohingya refugee camp, CFS is under the child protection sector. Here the key donor for making CFS is UNICEF. UNICEF gives funds to international and national NGOs.

Table 1: Stakeholder mapping

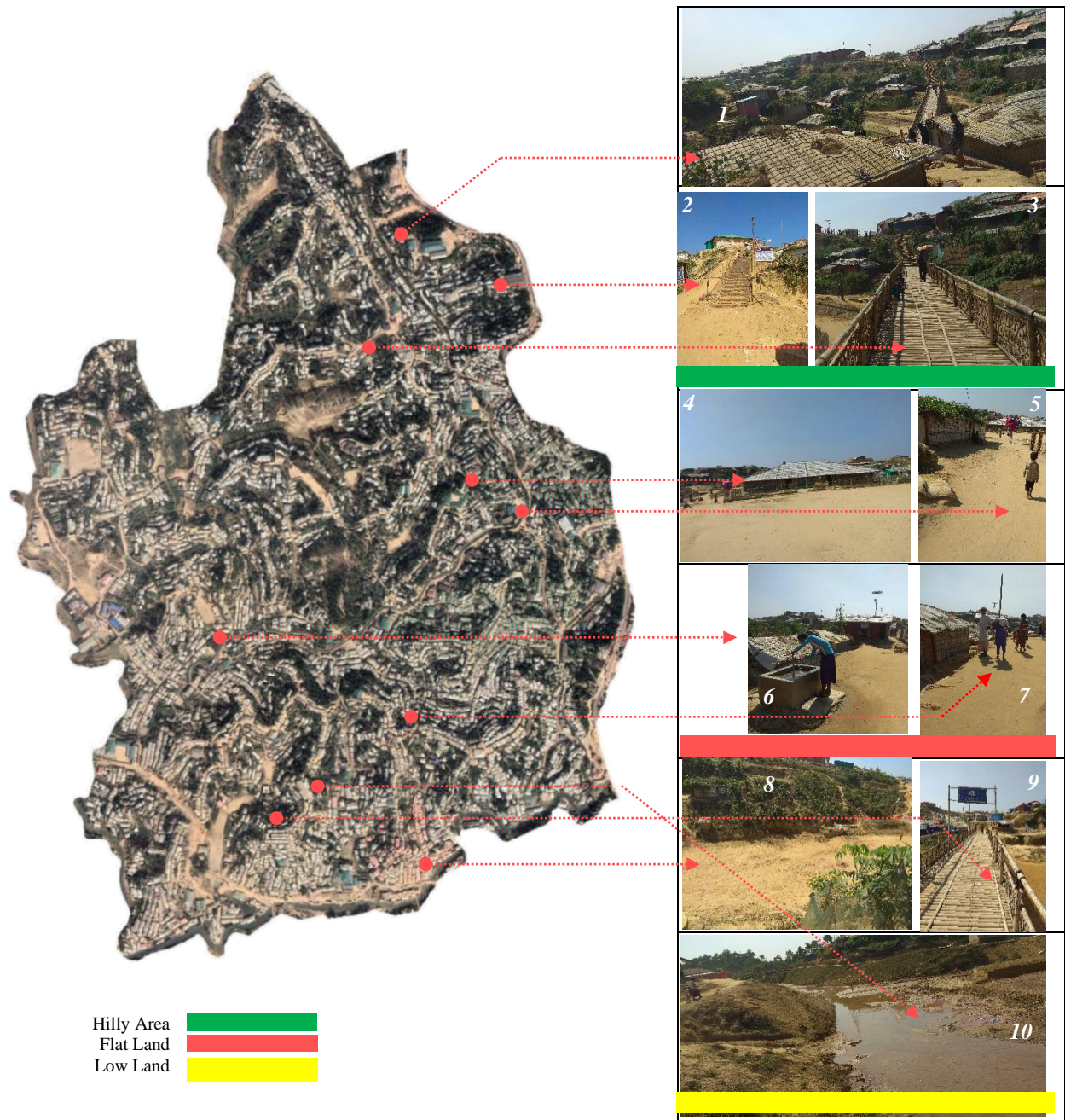
Sl. No	Stakeholders	Relationship/ Activity/Interest	
		Direct	Indirect
1	Children (7-12 Years)	Yes	
2	Trainer (CFS)	Yes	
3	NGO (implementor of CFS)	Yes	
4	Donor (Fund provider)	Yes	
5	RRRC		Yes
6	<i>Majhi</i> (Community leader)		Yes
7	Caregiver (Parents/like-parents)		Yes
8	NGO Staff		Yes
9	Camp in charge (CIC)		Yes
10	<i>Alekin</i> gang		Yes
11	Architects		Yes
12	Engineers		Yes

Source: (Physical survey, 2018 and 2022)

The total area of camp 18 is 186 acres and is divided into five blocks: A, B, C, D, E. These are denoted with separate internal boundaries. Camp 18 is a hilly area, fifty-five feet from the ground level. Various infrastructures and important spaces are annotated numerically (1, 2, ..., 10) with photographs and site plan (Figure 8), where 1 – Community households in the hilly area, 2 – poor vertical circulation for CFS, 3 – Shako (Bamboo-Made Bridge Connects the Hillocks), 4 – Community Mosque surrounded by plenty of open Space, 5 – Children roaming on the primary camp road, 6 – Community drinking water point, 7 – children transporting relief in a primary camp road, 8 – low land, 9 – Shako, 10 – open water disposal.

Figure 4: Topography of Camp 18 with infrastructure and other features

<sup>1</sup> 'mute' - daily laborers who carry goods from one place to another.



Source: (ISCG., 2019)

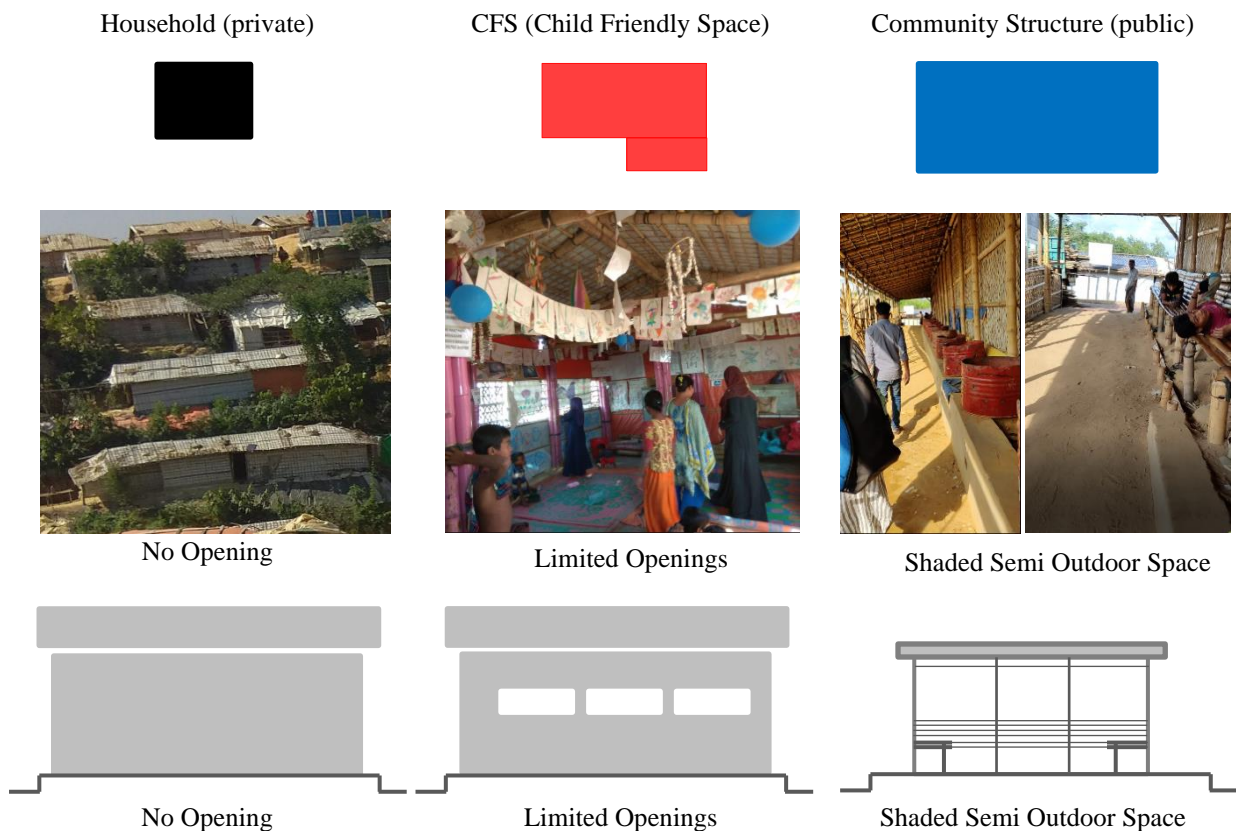


Figure 5: CFS 181 and its surroundings



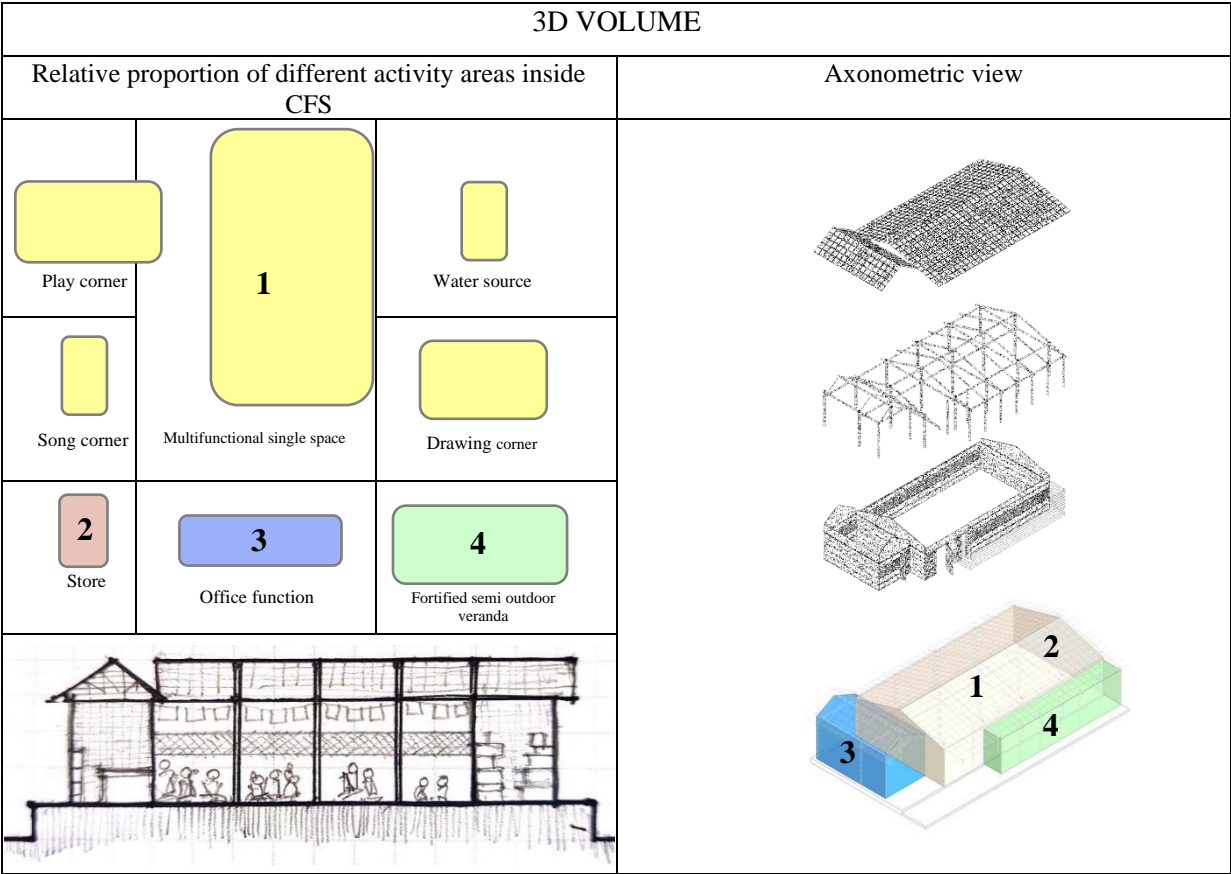
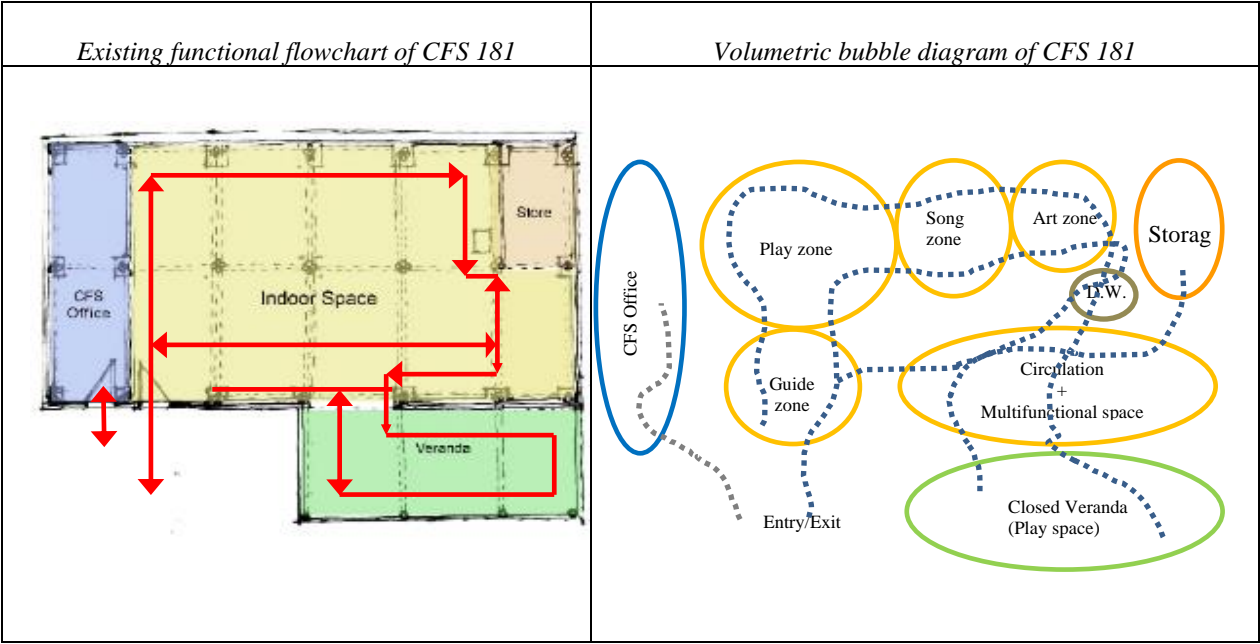
This CFS was established in August 2017, when the first Rohingya influx happened. It is situated in block A of camp 18, where early marriage, community restriction, and lack of female instructors are the social barriers for female children. These are cross-checked with the survey that these three social barriers are the fundamental social forces that cause this CFS's socio-spatial transformation. This section analyzes a set of attributes to achieve this research's second objective, which is identifying the key socio-spatial forces responsible for the transformation of CFS.

Figure 6: First step of Octonary Framework: Geometry



The community households in black (10 ft x 10 ft) and the community relief storage (70 ft x 40 ft) in blue are used as a social gathering spaces. The red forms (30 ft x 20 ft) are CFS. Homes serve private purposes, whereas community structures are for that of the public (relief distribution, social gathering, etc.). CFS is not a private, but is partially a public function. However, there is not much of a difference between CFS and community household frontal elevation. The CFS has a controlled veranda in the front.

Figure 7: Second step of Octonary Framework: Layout



It is the second perimeter of the Octonary Framework. After understanding the geometry of CFS 181, this step will help to understand the functional spatial flow in five steps: topology, clustering, enclosure, sequence, and circulation.

The street is a key element for the accessibility to this CFS. The street is an active connector between CFS and its user group. It is not a vehicular road, and is easily accessible. There is a multipurpose centre (MPC) very close to the CFS. It (the CFS) is also located at a walkable distance from the community households. The CFS, however, is not open to the frontal street. A semi-outdoor veranda is closed by a bamboo fence, which limits the accessibility of the CFS to the surroundings both physically and spatially.

*Figure 8: third step of Octonary Framework: Contextual Fit*

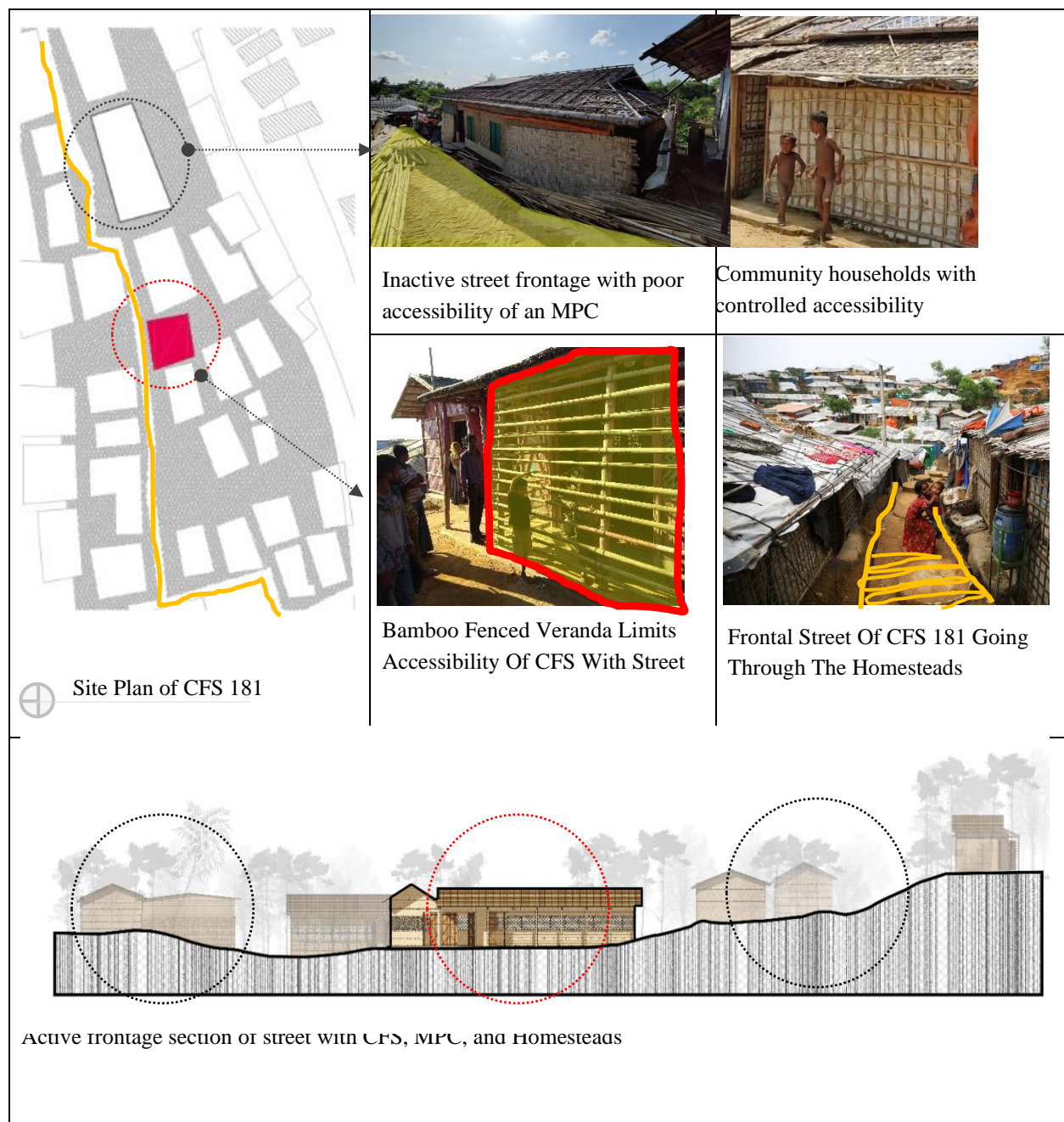


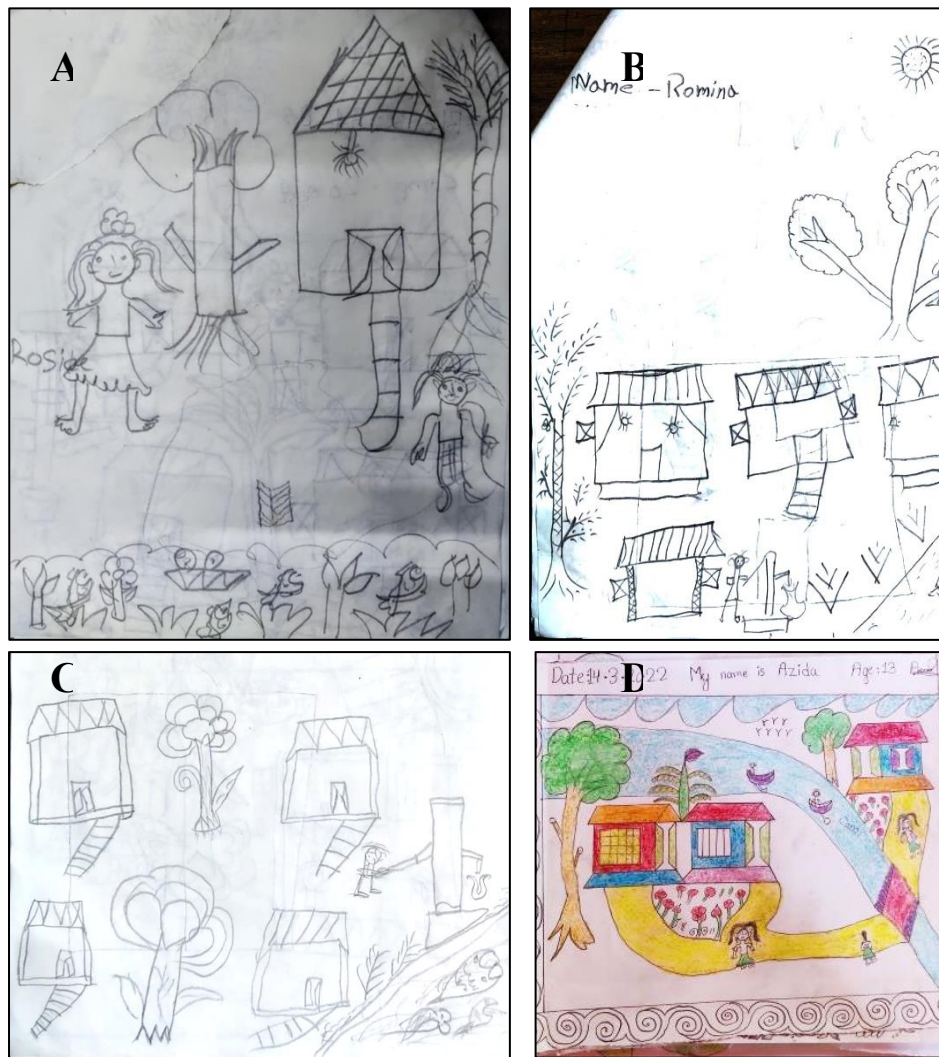


Figure 9: Findings from Octonary Framework

Stages (of Octonary Framework)	Year (2017 – 2022)
	CFS 181
Geometry	<ul style="list-style-type: none"> <li>• Rectangular shaped</li> <li>• Limited opening</li> <li>• Controlled veranda</li> <li>• Rigid architectural form</li> </ul>
Layout	• Multifunctional single space (Table 5.3)
	• Three major activity corners: play, art, song. (Table 5.3)
	• Linear and horizontal spatial flow between functions. (Table 5.3)
	• Ribbon type cluster (Fig 5.8)
	• Active functional linkage with street (Table 5.4)
	• Perforated opening at eye level, used as display board (Fig 5.9)
	• Solid enclosure detaches the CFS from surroundings
	• Sequential four types builtforms: CFS, camp household, MPC, community shade (Fig 5.10,11)
	• CFS and other builtforms have direct entry from street (Fig 5.12)
Contextual Fit	<ul style="list-style-type: none"> <li>• CFS at the center of cluster.</li> <li>• CFS seems inclusive – Cluster scale (Fig 5.13)</li> <li>• CFS seems introverted –Builtform scale (Fig 5.14)</li> <li>• Good physical connectivity of CFS – Meso scale (Fig 5.16)</li> </ul>
Style	• CFS is the reproduction of <i>Gudam ghar</i> type household (Fig 5.18), but in a rigid way
Surface Treatment	<ul style="list-style-type: none"> <li>• Use of locally available material (Fig 5.19)</li> <li>• Color code of wall follow the BRAC monogram's color code – white, crimson red</li> </ul>
Systems	• Natural ventilation with inadequate openings causes a suffocative atmosphere
Peripherals 114	<ul style="list-style-type: none"> <li>• Builtform dominated periphery.</li> <li>• Ignores the previous site context – forest.</li> <li>• Roof vegetation over house roof</li> </ul>
Graphic Design	<ul style="list-style-type: none"> <li>• Significant representation of logo of UNICEF and BRAC</li> <li>• Color of floral graffiti, column, roof, wall all represents the NGO monogram color concept. (Fig 5.22)</li> </ul>

The Octonary Framework's eight stages—geometry, layout, contextual fit, style, surface treatment, systems, peripherals, and graphics—have detailed a number of observations. Four key observations are identified by geometry itself. Fortified verandas and little ribbon-style openings at five feet level are two architectural features that are repeating spatial elements in all cases. All the CFS are rectangular shaped, which expresses the harmony of the overall settlement pattern, except the CFS 194, which is a peculiar rhombus-shaped form and incompatible with the overall settlement. It raises the question of whether there is a purpose behind the intended rigidity in the geometric form maintained by all CFS (built-form scale) across the timeframe.

Figure 10: Findings from Children's cognitive mapping (implemented by Gibson's theory)



Twelve children joined the drawing session and FGD. All children were female between the ages of 7 to 12. The most striking point among the visual data (children's self-drawing) is their self-appearance in each drawing. Though all the children are imprisoned under different social constraints, they do not consider the CFS a built-form-centred space; instead, they are perceptualizing CFS by situating themselves out of houses. The theory by James J. Gibson on visual perception from his article entitled "A theory of direct visual perception" could be taken as a standpoint for analyzing the FGD and Drawing analysis. For the sake of this research, the statement can be used to interpret and synthesize the original perception of the female children that they present through drawings and FGD.

#### 4. Conclusion

The research aimed to examine the changes of CFSs in Balukhali impelled refugee camp no 18 between 2017 to 2022 and identify the socio-spatial reasons/factors responsible. For examination, the thesis has used two important theories: Octonary Framework and Gibson's visual perception, which contributed to the analysis of the research. The Octonary Framework has been employed to define and map the changes (spatial) of the concepts of CFS, and Gibson's theory helps to understand the children's perspective.

A number of insights have emerged from this thesis: the spatial model of CFS has not shown any significant changes between the studied timeline. Color, size, texture, and other small

aesthetic modifications have been identified in the CFS model. Octonary Framework shows the fortification and sense of rigidity that gives a picture of the deliberate confinedness of CFS. This deliberate confinedness isolates the CFS from its surroundings. However, it contrasts significantly with children's perceptions of CFS, which are solely outdoor-focused.

The unchanged CFS model is not an isolated phenomenon but rather related to the geopolitics of the refugee camp. The state's decision to acknowledge the Rohingyas as forcefully displaced Myanmar nationals (FDMN) rather than "refugees" keeps the camp lawless. Due to the lawlessness, a parallel sovereignty (Podder, 2017) exists within the camp. As the Rohingya camp shows, sustaining CFS as a psychosocial support center requires multi-party approval to change its physical form. Since children are the main target group of CFS, but the decision about the spatial form is taken by four key stakeholders – Donor, NGO, Camp Majhi, and Invisible Syndicate. Their interdependent ecosystem among them facilitates the monetary flow and power production inside the camp. As an outcome of the ecosystem, different NGOs are doing different forms of cosmetic makeovers around the constrained spatial model of CFS, changing just the wording, such as MPC, MPCAC, AFS, and so on, for their financial benefit, which is mentioned as politics of labeling in the thesis.

In Rohingya refugee camp, CFS is rather exploited as a tool by all four stakeholders to implement their respective agenda. Donors see CFS as a geopolitical image-building instrument, NGOs see CFS as a one-stop shop for profit-making, Majhi as a religio-cultural instrument to gain control over the camp, and the invisible syndicate as a sexual exploitation space. Architects collaborate with this agenda and make/materialize CFS a colorful envelope wrapped in the pretext of community-based inclusive architecture.

As per UNICEF and Save the Children documents, CFS contributes to making a healing infrastructure inside the camp, focusing on psychosocial assistance in various childhood crises/emergencies. The thesis exposes a vital rhetoric of the so-called community architecture, inclusive architecture, participatory architecture, and so on. Despite the rhetoric, the existing form of CFS quite smartly plugs into the everyday war-like camp setting. Here architecture negotiates with politics, yet it remains to reflect less on what it is intended to achieve. The research is done within a small perimeter of one camp, despite the Rohingya camps being restricted and very tough to access, it has a broader future scope to investigate the CFSs from other camps in Cox's Bazar

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## **References :**

- Agamben, G. (2021). State of exception. In *State of Exception*. University of Chicago Press.
- Aoyama, H. (2000). A study of stratified random sampling. *Ann. Inst. Stat. Math*, 6(1), 1-36.
- Baidya, E. U., Mahboob, F., Polin, F., & Chowdhoree, I. (2020). Designing spaces with victims of humanitarian crisis: action research on spaces for children at Rohingya camps in Bangladesh. *External Interventions for Disaster Risk Reduction*, pp. 103-119.
- Chowdhury, M. A. K., Billah, S., Karim, F., Khan, A. N. S., Islam, S., & Arifeen, S. E. (2018). Report on Demographic profiling and needs assessment of maternal and child health (MCH) care for the Rohingya refugee population in Cox's Bazar, Bangladesh.
- Chowdhury, M. A., Ahamed, A., & Rahman, M. (2020). A critical study on the Rohingya refugee children and the crisis of their identity in Bangladesh. *Turkish Studies-Social Sciences*, 15(6), 3273-3290.
- Davie, S., Stuart, M., Williams, F., & Erwin, E. (2014). Child friendly spaces: protecting and supporting children in emergency response and recovery. *Australian Journal of Emergency Management*, 29(1), 25-30.
- Diken, B. (2004). From refugee camps to gated communities: biopolitics and the end of the city. *Citizenship studies*, 8(1), 83-106.
- Ejdervik, R., Claessens, L. (2017). Child friendly spaces, providing child protection and education in conflict settings: a case study from Timbuktu, Mali. *United Kingdom: Plan International*, 7-13.
- Fidel, R. (1984). The case study method: A case study. *Library and Information Science Research*, 6(3), 273-288.
- Hailey, C. (2009). Camps: a guide to 21st-century space. Cambridge, MA: Mit Press, 3.
- Hart, J., Tyrer, B. (2006). Research with children living in situations of armed conflict: concepts, ethics and methods. *United Kingdom: University of Oxford*, 28-31.
- Hilhorst, D., Porter, H., & Gordon, R. (2018). Gender, sexuality, and violence in humanitarian crises. *Disasters*, 42, S3-S16.
- Hsieh, H.F., Shannon, S.E. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research*, 15(9), 1277-1288.
- Islam, M. R., Islam, M. T., Alam, M. S., Hussain, M., & Haque, M. M. (2022). An Assessment of the sustainability of living for Rohingya displaced people in Cox's Bazar camps in Bangladesh. *Journal of Human Rights and Social Work*, 1-15.
- Maani, N. (2016). From refugee camp to resilient city: Zaatari refugee camp, Jordan. *Footprint Delft Architecture Theory Journal*, 10(2), 145-148.
- Marshall, M. N. (1996). Sampling for qualitative research. *Family practice*, 13(6), 522-526.
- Marshall, M.N. (1996). Sampling for qualitative research. *Family Practice-Oxford Academic Journal*, 13(6), 522-526.
- Martin, D. (2015). From spaces of exception to 'campscapes': Palestinian refugee camps and informal settlements in Beirut. *Political geography*, 44, 9-18.
- Metzler, J., Diaconu, K., Hermosilla, S., Kaijuka, R., Ebulu, G., Savage, K., & Ager, A. (2019). Short-and longer-term impacts of Child Friendly Space interventions in Rwamwanja refugee settlement, Uganda. *Journal of Child Psychology and Psychiatry*, 60(11), 1152-1163.
- Milton, A. H., Rahman, M., Hussain, S., Jindal, C., Choudhury, S., Akter, & Efird, J. T. (2017). Trapped in statelessness: Rohingya refugees in Bangladesh. *International journal of environmental research and public health*, 14(8), 942.



- Rashid, R., Uddin, A. M. S., Nu, P. C., Salam, A., Barua, S., Mannan, A. (2021). A descriptive study of Forcefully Displaced Myanmar Nationals (FDMN) presenting for care at public health sector hospitals in Bangladesh. *Global health action*, 14(1), 1968124.
- Reiter, B. (2017). Theory and methodology of exploratory social science research.
- Retzlaff, S. (2005). What's in a name? The politics of labelling and Native identity constructions. *The Canadian Journal of Native Studies*, 25(2), 609-626.
- Roy Chowdhury, A. (2020). An un-imagined community: the entangled genealogy of an exclusivist nationalism in Myanmar and the Rohingya refugee crisis. *Social Identities*, 26(5), 590-607.
- Sanyal, R. (2014). Urbanizing refuge: Interrogating spaces of displacement. *International Journal of Urban and Regional Research*, 38(2), 558-572.
- Save the Children. (2008). Child friendly spaces in emergencies: a handbook for save the children staff. *London: Save the Children International*, 54.
- Tyrer, P., Coombs, N., Ibrahimi, F., Mathilakath, A., Bajaj, P., Ranger, M., & Din, R. (2007). Critical developments in the assessment of personality disorder. *The British Journal of Psychiatry*, 190(S49), 51-59.
- Ullah, A. A. (2011). Rohingya refugees to Bangladesh: Historical exclusions and contemporary marginalization. *Journal of Immigrant & Refugee Studies*, 9(2), 139-161.
- Van den Scott, L. J. K. (2018). Visual methods in ethnography. *Journal of Contemporary Ethnography*, 47(6), 719-728.
- Ek, R., Fougère, M., & Skålen, P. (2007, July). Revisiting Foucault through reading Agamben: implications for workplace subjectification, desubjectification and the dark side of organizations. *In Fifth International Critical Management Studies Conference, Manchester*, 11-13).
- Spinks, L. (2001). Thinking the post-human: literature, affect and the politics of style. *Textual Practice*, 15(1), 23-46.
- Ferrell, J., & Weide, R. D. (2010). *Spot theory*. *City*, 14(1-2), 48-62.

## References (TNR 14pt., bold)

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**(Book style -** Author, year. *Title (in italics)*. Publisher, location of publisher.)

Cichocki, A. and Unbehaven, R., (1993). *Neural Networks for Optimization and Signal Processing*, 1st ed. Chichester, U.K.: Wiley.

Chen, W. K. (1993). *Linear Networks and Systems*, Belmont, CA: Wadsworth, pp. 123-135.

**(Journal -** Author, year. Paper title. *Journal name (in italics)*, volume and issue numbers, inclusive pages.)

Chen, S., Mulgrew, B. and Granta, P. M. (1993). "A clustering technique for digital communications channel equalization using radial basis function networks," *IEEE Trans. on Neural Networks*, vol. 4, pp. 570-578.

Hill, R. M. (1997). The single-vendor single-buyer integrated production–inventory model with a generalized policy, *European Journal of Operational Research*, vol. 97, pp. 493-499.

**(Online Sources style)**

Vidmar, R. J. (August 1992). On the use of atmospheric plasmas as electromagnetic reflectors. *IEEE Trans. Plasma Sci.* [Online]. 21(3). pp. 876-880. Available: <http://www.halcyon.com/pub/journals/21ps03-vidmar>

**(Conference paper or contributed volume -** Author, year, paper title. *Proceedings title (in italics)*. City, country, inclusive pages.)

Beck, K. and Ralph, J. (1994). Patterns Generates Architectures. *Proceedings of European Conference of Object-Oriented Programming*. Bologna, Italy, pp. 139-149.