

# DISASTER RELIEF

Transient Architecture: Rehabilitating Disaster Victims  
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### Abstract

The State of disaster management units throughout India has lacked a solid foundation, even after noticing so many examples of poorly managed disaster situations. Especially in Mumbai which is prone to flooding in the monsoon seasons, the task action forces are still lagging a little behind in dealing with these recurring annual Calamities. This paper will explore the techniques, materials, and systems that can be used to monitor and handle post-disaster situations.

*Keywords:* Rehabilitation, providing essential services and resources to those affected by the calamity, Mobile-adaptable structures)

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### **Objective**

The objective of this study is to Identify through case studies what has been done in the world and how it can be applied in the Indian Context. This is in regards to the sub-par disaster management in India and how a new system with better options of dealing with situations will help those who are periodically in danger of being affected by disasters.

### **Case Studies**

#### **Human shelters**

Human shelters are a subcategory of short-term living. Usually, it is meant to give a temporary shelter for Internally Displaced Persons (IDPs) and refugees, who under some circumstances, like war, natural disasters or political persecution lost their homes. It is specific form of dwelling, because a great number of people at the same time lose their homes and needs a temporary living space. It is also an extreme situation of housing: you don't have the right to choose your dwelling as we are used to it in everyday life and the quality of these dwellings depends on good fast decisions and reaction. It's also hard to foreknow possible period of using them (Dabaad, Kenya refugee camp example, which exists more than 20 years, which meant to be for a few years).

A very important organization is UNHCR (United Nations High Commissioner for Refugees), responsible for the quality of dwellings and camp areas. For example, they regulate square meters inside the unit for 1 person, site planning details and etc. But the government and architects have to find best solutions of fast, cheap and at the same point sustainable and livable dwellings with the best possible qualities. It's important that units could be explored for more years than expected, to reduce costs if the term lasts longer. And also, to avoid becoming a slum because of bad materials and choices.

#### **Shigeru ban and paper log houses**

Shigeru Ban (born in 1957) is an architect from Japan, Tokyo. From young age he was interested in paper, wood and bamboo materials. In 1985-86 he started to use paper for his designs. First it was used for the installation for Alvaro Aalto exhibition. And after that he started a case study of paper-tube structures, by designing "PC Pile House, "Furniture House" and etc. At the beginning he faced a lot of problems by testing paper tubes as house construction materials, but soon he saw that this material is even stronger than he thought. He also found that it's possible to make it water and fire proof. At the moment Shigeru Ban is the only architect in the world, who is creating paper houses. As architect mentioned, he faced a lot of difficulties, to convince government and organizations to start these types of buildings, especially in

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post-disaster regions. But after few tested examples, it was obvious that it can be used as a house material' and it is strong enough to stand more than 10 years.

### *Insulation*

It's important to have a good insulation during rainy seasons, winter time (in some countries) and extremely hot periods. Off course it really depends of the situation. Like in Haiti project of human shelters, Shigeru Ban built houses on bear crates filled with sand bags, to avoid floods causing the units. "Usually, insulation in Paper Log houses is create with extra plywood planks. Natural materials also give possibility for better ventilation, greater thick of roof and cardboard tubes (works like ventilated facade) gives possibility to have warmer dwelling during night, and cooler unit during the day.

### *Culture and traditions*

The quality of living also can be described as how you can fit your traditions and culture needs to the house. For describing this factor there are examples from Turkey and Sri Lanka. In Turkey architect Shigeru Ban made bigger houses, because of the greater family sizes in that area. In Sri Lanka houses there made with separated rooms, because women of the house can't see the guest coming in to the house

### *Quality of living*

The quality of living space in human shelters should be one of the most important aspect. People experienced disaster-included displacement or refugees are in a very extreme psychological condition. "So, to create comfortable, private and good quality units is the key to reduce the suffering of people" Shigeru Ban's paper log houses have more qualities than it looks like. First of all, natural materials, good microclimate inside and even after few years, shelters look nice. The aesthetic factor is also important to give displaced people at least some quality in their life. It is also important to have possibility to make more private rooms for sleeping, a place to cook meal and to have common areas outside the house with small community, who also suffered the same disaster.

" In some surveys, people living in human shelters usually mentioned a possibility to change your unit, because every family and resident of the human shelter are different from each other and have different needs. So, possibility to make bigger windows, doors or make more rooms and private spaces is very important. "Getting back to Shigeru Ban, it is very easy to make changes on the facade and inside the house, by putting or taking some of the cardboard tubes or even cutting them. Shigeru Ban by himself made some different schemes of transformation without losing any other qualities, like ventilation or good connection with outside.

### **Inferences & Conclusions**

What I have come to conclude after doing all this research is that something which is modular and can adapt to its surroundings quickly is a good solution for disaster relief. We can also introduce inflatable structures, which are becoming common in today's times, and also improve the quality of canvas used for rehabilitation tents. Alongside we also need a strong system of waste management and sanitation, which can be achieved by deploying 'Toilets on Wheels' in the affected areas, and keeping it functional. Along with that I also learned that a system has to be setup to manage how these operations are carried out because in the current state the system might not be fully capable of handling calamities if they got out of hand.

References

1. *According to the statistics, 68% of India's land is prone to drought, 60% to earthquakes, 12% to floods and 8% to cyclones, making India one of the most disaster prone countries in the world, affecting overall 85% of Indian land and more than 50 million.* (2013). Worldfocus.In. <http://www.worldfocus.in/magazine/disaster-management-in-india/>
2. Frearson, A. (2013, August 6). *Shigeru Ban completes Cardboard Cathedral in Christchurch.* Dezeen; Dezeen. <https://www.dezeen.com/2013/08/06/shigeru-ban-completes-cardboard-cathedral-in-christchurch/>

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Sanctuaries in Architecture: Safe Spaces for Resilience and Revolution

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### Abstract

The Urban fabric of today's metropolises is very intricate and intensive but it leaves out some gaps, which result into negligence and apathy towards certain sections of the society. According to statistics, a large number of Individuals in the LGBTQIA+ community along with Women, adolescents and children of age face some kind of abuse. The paper dwells upon how providing Safe Spaces for Habitation of these Vulnerable Individuals can help in the betterment . The sanctuary will encompass an array of tasks ranging from Advocacy, awareness about the topics of violence to the methods in which such types of redundancies can be prevented from happening. There will be a physical manifestation of these concepts in the form of architectural units, both- Stationery and Mobile.

*Keywords:* Rehabilitation, Advocacy about violence existing against Vulnerable Identities (Migrant Women, Children & Adolescents, LGBTQI+ Individuals, Victims of Domestic Abuse)

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## Sanctuaries in Architecture: Safe Spaces for Resilience and Revolution

### **Introduction to the case**

There has been a noticeable rise in violence against women; both in public and domestic areas<sup>1</sup>, hate crimes against LGBT individuals, especially the Transgender community are happening at an alarming rate<sup>2</sup>, neglect and abuse of Adolescent and Pre-adolescent Kids is also in dangerous levels<sup>3</sup>. There has been a rise in these statistics, because of the current situations of lockdown and pandemic. A dedicated system of managing and dealing with these issues has to be established to eradicate these issues and try to give the individuals a chance to grow and prosper.

### **Strategies for dealing with the situation**

The way we can make the society a better place for the Individuals under consideration is by putting in place a system that is not just present at one location but consists of a main Structure and various degrees of auxiliary structures which will act like roots for the main structure, giving it life and also increasing the outreach of the purpose of the program.

Tentatively these are the programs that are going to be focused primarily in the proposal:

1. The Main Centre- For rehabilitation of the victims, main action center for all the activities, administration and outreach, resources for dealing with trauma
2. Auxiliary centers- Spread across the city these will be small modules for local coordination and emergencies, these will further have small action/task modules which will take actions on site

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3. The Rehabilitation Centre- For the oppressors, for their education and making them understand about the way their actions affect others, and how they can change their outlook and actions

## **Main Structure**

### **Emphasising the need for the Institution**

For youth to thrive in schools and communities, they need to feel socially, emotionally, and physically safe and supported. A positive school climate has been associated with decreased depression, suicidal feelings, substance use, and unexcused school absences among LGBT+ students. LGBTQ youth are at risk for family rejection, homelessness, discrimination and bullying at school, and harmful so-called "conversion therapy" practices. LGBTQ youth are also uniquely resilient and build amazing support structures for themselves. But a lot of individuals in the Indian Scenario don't have access to a proper system of support. And this is the reason why I want to provide safe spaces they can access before they become adults and have to deal with their Issues in adults.

The victims of violence and abuse are often victim blamed and that leads to further degradation of their psychological health. For all those who can afford to go to therapy it gets easier to deal with the trauma, but therapy itself is still very much stigmatized. But for those individuals that cannot afford to go to therapy, it gets very hard to deal with the trauma and they have no other choice than to suppress it because they do don't know how to deal with the situation.

### **What will be a part of the Main Structure of the Project?**

Essentially the function of the Main Structure will be habitation of the People affected by violence. This will include habitation for the Victims of domestic and sexual abuse, Victims of hate crime and other vulnerable individuals of the LGBT+ Community.

There are a lot of local organisations that have come up to support these causes and it would be very helpful if they get a dedicated space to work and interact with each other. That will create solidarity between these organisations and will help in increase the outreach of these organisations.

Additionally, the structure will also include a resource centre and meeting halls for conducting seminars and talks about the issues and educating the society about the issues and how to deal with it. The Resources will help achieve these goals:

- Encourage respect for all students and prohibit bullying, harassment, and violence against all individuals

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- Identify “safe spaces”, such as this structure, where victims of abuse can receive support from administrators, professionals, or other type of counsellors
- Encourage student-led and student-organized clubs in local schools that promote a safe, welcoming, and accepting school environment (e.g., gay-straight alliances or gender and sexuality alliances, which are school clubs open to youth of all sexual orientations and genders, youth against abuse alliance etc.)
- Ensure that health curricula or educational materials include HIV, dealing with abuse (such as ensuring that curricula or materials use language and terminology) Provide trainings to staff on how to create safe and supportive environments for all individuals, regardless of sexual orientation or gender identity, and encourage staff to attend these trainings.
- Facilitate access to community-based providers who have experience providing health services, including HIV/STD testing and counselling, social, and psychological services to LGBTQ youth, individuals affected by abuse.

Each person responds differently to abuse and trauma. Some people are more resilient, and some are more sensitive. How successful an individual is at recovering from abuse or trauma depends on several things, including having:

- A good support system or good relationships with trusted adults
- High self-esteem
- Healthy friendships

Although people will probably never forget what they saw or experienced during the abuse, they can learn healthy ways to deal with their emotions and memories as they mature. The sooner a person gets help, the better their chances for becoming a mentally and physically healthy adult.

People are hesitant in reporting such incidences because most of them are very vary of dealing or getting involved with the law. This Place will be a location which they can approach without any hesitation and try to deal with the trauma.

This place will also provide essential resources for them who are going through a certain stage of their life and figuring things out and don't have access to the resources because they are not that commonly available.

### **Auxiliary Centres (Plugins for the Main Structure)**

These will be smaller modules/mini structures spread out throughout the city which will act as the local action centre for that area. They will act like outreach for the main structure, and will be conveniently in reach for the affected. These will contain respondents, general resources

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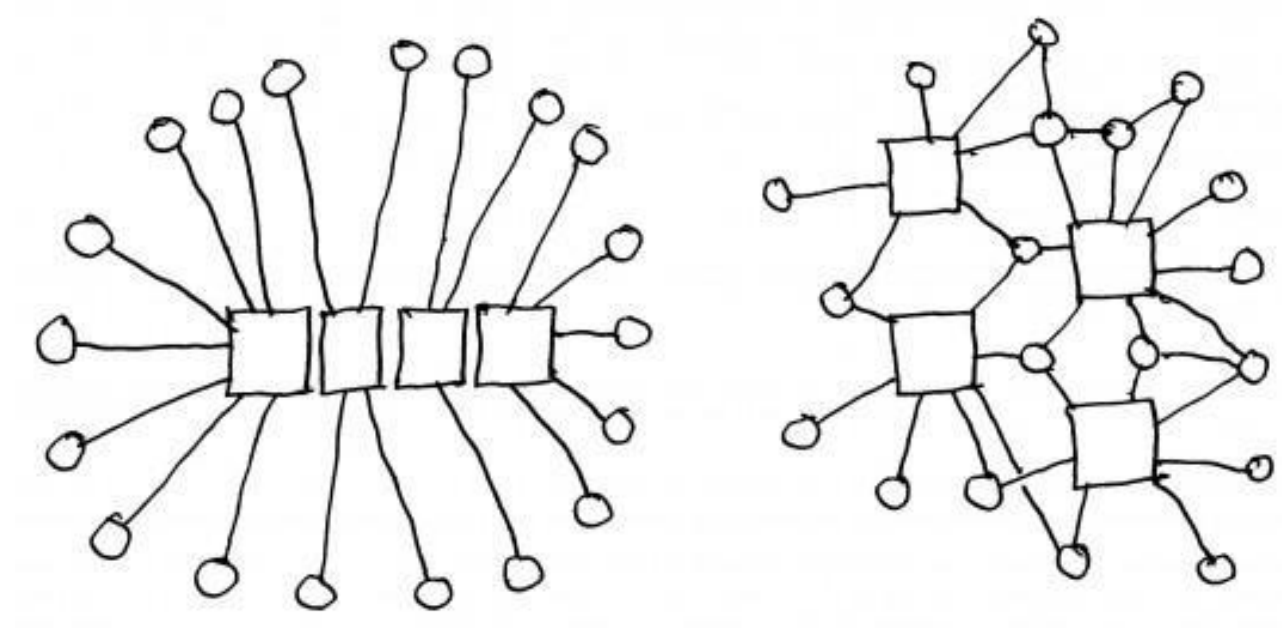
for onsite interventions tools. These will be centres at which the affected individuals can report to anonymously.

### **Rehabilitation Centre**

The Third and last part of the system would be a reconditioning and rehabilitation for the afflicters. These would be helpful to make them understand how they can improve upon.

## Theories Used

Resilience in architecture and how that makes for a more stable structure for organizations and systems. (*What Does "Resilience" Have to Do with Architecture?* - Metropolis, 2013)



*Figure 1 Showing how a More Resilient (Right) system is more likely to accommodate disruptions, than the overly concentrated system which is prone to chain failures.*

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## **Case Studies**

### **LACASA Center for Victims of Abuse, Michigan, USA**

Their Crisis Shelter provides an immediate sanctuary if someone is forced to leave their home because they fear for their life. They provide a safety net of support for them and your children. You will receive help and critical resources, including counselling and legal advocacy assistance.

LACASA Centre provides comprehensive services for victims of child abuse, as well as their families. When a suspected case of child abuse is reported to authorities, they collaborate with Child Protective Services and the Law Enforcement Office to investigate cases of abuse. Their specially trained team of social workers provides a safe space for children and teens to come for counselling, age-appropriate support groups, and activity programs that help young people regain a sense of normalcy in their lives.

All their services for assault victims and survivors are private, confidential and provided at no charge. Their team of counsellors, advocates and nurses are specially-trained to help the victim make critical decisions immediately following an assault and they provide ongoing support as the victim begins their journey of healing- physically and emotionally.

### **LGBT Community Centre, New York, USA**

The Centre provides a secure place to come together and plan, advocate, ACT UP, share our knowledge and expertise, and shape our future.

The Centre operates a building; and provides LGBT community space to conduct meetings, conferences, forums, classes, and service programs, community-building and fundraising events. The Centre has grown to become the largest LGBT multi-service organization on the East Coast and second largest LGBT community centre in the world.

The Centre's direct service programs include:

**Centre Recovery and CARE Wellness** (Counselling, Advocacy, Recovery and Education) is the Centre's adult mental health and wellness program. Since 1983, the Centre has been at the forefront of creating awareness for HIV and AIDS, as well as providing counselling, education, prevention and bereavement services. Centre Adult services have also been innovators in making available ground-breaking alcohol and substance abuse prevention and treatment services that are tailored to LGBT people; helping people of transgender experience find support, information and community; and helping individuals deal with their anxiety, depression and other mental health concerns.



**Centre Families and Youth Enrichment Services** (YES) these programs aim to foster the healthy development of LGBT families, including current and prospective LGBT headed families with and without children by creating a safe, educational and affirmed environment for individuals at all stages of the family lifecycle; this includes LGBT foster care families that may or may not be LGBT headed households. The Centre provides support groups, information and referrals as well as play dates and other networking opportunities for LGBT families in the tri-state area. YES, focuses on ending isolation experienced by many LGBT youths. YES, offers professional development training for youth workers, child welfare workers, teachers, guidance counsellors and school administrators. YES, also has a leadership training and networking project for students working to end homophobia in their schools.

**Culture, Community Services and Referral** In the tradition of the Centre's commitment to building community, meeting and conference services provides affordable meeting space for 300 organizations and self-help support groups. It partners with cultural organizations around the City, expanding the community's reach to broader and more diverse audiences. The Cultural Programs Department engages an extensive variety of artists, authors, speakers and activists to create a safe space for culture and the arts to be well-represented at the Centre and among the larger LGBT community.

## **Conclusion**

In this case study, I discussed why places for Victims of Abuse and LGBTQ+ groups are important and gave a background on the issues these people face and their needs. By conducting and writing the results of this case study, I hoped to create a template or set of methods for Victims of Abuse and LGBTIQ-focused university organizations, centers, and offices can employ to build representative collections and offer services to those in need. It is my hope that future research will expand and improve upon the methods detailed in this study, leading to a robust body of knowledge to which the affected people can turn for assistance.

## References

1. *Violence Against Women in India: Crimes, Statistics & Causes*. (2017). Poverties.org. <https://www.poverties.org/blog/violence-against-women-in-india>
2. Aqsa Shaikh. (2020, February 5). *The Price That Transgender Folk Pay to Accept and Assert Their Identity*. Youth Ki Awaaz; Youth Ki Awaaz. <https://www.youthkiawaaz.com/2020/02/violence-against-transgender-persons-the-truth-we-dont-want-to-talk-about-but-we-must/>
3. Save the Children India. (2016, September 8). *Save the Children India | Recent statistics of child abuse*. Save the Children India. <https://www.savethechildren.in/resource-centre/articles/recent-statistics-of-child-abuse>
4. *According to the statistics, 68% of India's land is prone to drought, 60% to earthquakes, 12% to floods and 8% to cyclones, making India one of the most disaster-prone countries in the world, affecting overall 85% of Indian land and more than 50 million*. (2013). Worldfocus.In. <http://www.worldfocus.in/magazine/disaster-management-in-india/>
5. *LGBT Youth*. (2020). <https://www.cdc.gov/lgbthealth/youth.htm>
6. Meichenbaum, D. (n.d.). <https://melissainstitute.org/wp-content/uploads/2018/11/WAYS-TO-BOLSTER-RESILIENCE-LGBTQ-YOUTH.pdf>