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Architectural Response to Humanitarian Crises

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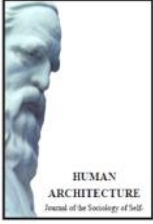


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Architectural Response to Humanitarian Crises

Re- Vampment of Govt Degree College Dara Adam Khel.

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Abstract: Humanitarian design has become a popularized phenomenon in recent years, and it comes in all shapes and sizes. **Humanitarian architecture** basically means architecture designed for those in need. It is “seeking architectural solutions to humanitarian crises and bringing professional design services to communities in need.” Mostly, Humanitarian crises comes into account due to disasters either natural or human induced disaster. Any community which has been disturbed due to any disaster, having basic unstabilities like physical and social. These issues are further sub-categorized as, lives, properties, psychological, economic and education issues.

Darra Adam Khel is a region which has been affected by man-made disaster (**terrorism**). So, I observed that community and found those issues that has been learned from literature. Physical issues, lives and properties, in numbers of thousands injuries and casualties occur and hundreds of properties were destroyed, as these issues belong to individual entity, so they recover them by themselves. Next is Social issues, subcategorized in psychological, economic and education. All the schools and colleges are damaged by explosions and till now that issue remain same as it was.

So, after observation of that community, I conclude that education is a common humanitarian issue of that community, which has been disturbed after terrorism and give a good example of “Humanitarian Architecture”. So, I came to know that all the educational buildings are damaged by heavy explosions which are not in condition for further use. So, the scope of the project is to re-design the Government Degree College Dara Adam Khel.

I. INTRODUCTION

A humanitarian crisis (or "humanitarian disaster") is defined as a singular event or a series of events that are threatening in terms of health, safety or well-being of a community or large group of people [1]. It may be an internal or external conflict and usually occurs throughout a large land area. Local, national and international responses are necessary in such events. Each humanitarian crisis is caused by different factors and as a result, each different humanitarian crisis requires a unique response targeted towards the specific sectors affected. This can result in either short-term or long-term damage. Humanitarian crises can either be natural disasters, man-made disasters or complex emergencies. In such cases, complex emergencies occur as a result of several factors or events that prevent a large group of people from accessing their fundamental needs, such as food, clean water or safe shelter. Examples of humanitarian crises include armed conflicts, epidemics, famine, natural disasters and other major emergencies. All such crises may cause, involve or lead to a humanitarian crisis.

The word Humanitarian can be defined as "having concern for or helping to improve the welfare and happiness of people. Architecture is more than just design and draw – its problem solving! Humanitarian architects work with communities on site-specific projects that require solutions to issues, whether big or small. According to Herbert A. Simon & Alastair Campbell Humanitarian architecture "devising courses of action aimed at changing existing situations into preferred ones" "the act of deliberately moving from an existing situation to a preferred one by professional

designers or others applying design knowingly or unknowingly;"[2].

II. BACKGROUND

This section contain the types of humanitarian crises and their impacts on different aspects of community which occurs due to a disaster [3].

Categories:

There is no simple categorization of humanitarian crises. Different communities and agencies tend to have definitions related to the concrete situations they face. A local fire service will tend to focus on issues such as flooding and weather induced crises. Medical and health related organizations are naturally focused on sudden crises to the health of a community.

Impacts:

When a disaster hit any community or region, then that have many impacts on that community, so following are some number of impact to be discussed.

Women's Social Status in Humanitarian Crises

Socially, women and children (mostly girls) receive a significantly decreased amount of attention in response to humanitarian crises. Women and children make up 3 quarters of refugees or displaced persons at risk post-crisis. A quarter of this population is of reproducing age and a fifth of this population is likely to be pregnant. In times of emergency and such crises, deaths associated with pregnancy, reproductive health, sexual violence and sexual exploitation increase drastically especially amongst females. During such emergencies,

women lose access to family planning services, prenatal care, postpartum care and other health services. The heightened risk of female health and safety makes them vulnerable to disease, violence and death.

Socio-economic Realities of Humanitarian Crises

Economic issues can lead to humanitarian crises or humanitarian crises can lead to economic downfalls. If it occurs after a humanitarian crisis affects a nation, it is imperative to return the livelihoods in the economic settings of the nation. If it occurs as a cause of humanitarian crisis, the society would have been in a state of civil insecurity and economic shortfalls, which could cause the government to collapse. This can also result from food insecurity, famines, corruptions and various other issues. Direct effects of this situation include human rights violations, violence and mass murders.

Environmental and Ecological Impacts

In the cases of humanitarian crises, especially natural disasters such as tornadoes, tsunamis and earthquakes, these incidences leave environmental and ecological impacts on the regions affected. The aftermaths of natural disasters can lead to a significant decrease in natural resources while making the region prone to future issues. For example, if a forest fire occurs in a large region, the area may be susceptible to air pollution, dust clouds, release of carcinogenic gases and others. Forest ecological wildlife, for example, is severely impacted by such events. In the cases of water natural disasters such as floods and tsunamis, extensive damage due to the

water is prevalent. Fish, corals and other ocean life is impacted, which further impacts the livelihoods of fishermen.

Preparing for humanitarian crises

In dealing with humanitarian crises, emergency preparedness plays a critical role by building national capacity to reduce the cost of long-term response. However, humanitarian finance is released after a crisis and instead of providing support through a continued preparedness system, isolated 'preparedness activities' take priority. Emergency preparedness is largely underfunded and existing financing is complicated, fragmented and disorganized. To better respond to humanitarian crises, a report by the Overseas Development Institute suggests that although there are advantages to improving existing financing mechanisms, incremental changes will still leave gaps and a new system must be considered to save lives and aid disaster risk reduction [4].

III. A CASE OF SOLOMON ISLAND

This is a case study which has been taken to explain the concept of humanitarian architecture. Solomon Island is one the island of Australia and has been affected by natural disaster, Earthquake and Tsunami. When in 2007 Earthquake and Tsunami hit the Solomon island, 36,000 people were displaced, 5500 homes were damaged, 500 swept away, 165 school flattened and severally damaged. EAA (Emergency Architects Australia) [5] designed prototype school buildings and house that were affordable and easy for them to build and maintain themselves. Organization trained them in basic construction and able them to read basic

drawings and use the material which are in the condition to rebuilt their houses. .

IV. THE AIM OF THE PROJECT

- Understanding of the link between an institutional strategy, an operational strategy and its concrete implementation.
- Understanding of the global humanitarian context as well as the sociology of humanitarian actors and fundamental elements of a specific crisis context.
- Understanding of the type of humanitarian interventions, humanitarian dilemmas and humanitarian options.

V. THESIS STATEMENT

Mostly, Humanitarian crises occurs due to disasters either natural or human induced disaster. D.A.K region has been affected by man-made disaster (Terrorism) from 2007-2014. Due to that act people of D.A.K faced through many Humanitarian Crises such as social, cultural or economical. Education is one of the issue in those crises that many education buildings were damaged by the use of different explosions and Govt Degree College of D.A.K is one of the victim in that damaged buildings.

College level students of D.A.K and adjacent areas are currently studying at Govt high school Akhorwal.

Both College and school student faces many problems, college student occupied the space of school students and those student are studying in the tents. So, there is no as such facilities which are required for an educational institutes because lack of suitable special configuration or space requirement.

VI. CURRENT ANALYSIS

The current building is situated at the start of darra adman khel when you enter on the way from Peshawar and at the end when you are on the way from kohat.

The current building is as much damage by the local terrorist using high level of explosions that cannot be able for use.

VII. WHAT IS AN EDUCATIONAL INSTITUTE?

An educational institution is a place where people of different ages gain an education, including pre-schools, child-care, elementary schools, and universities. it is a physical expression of various functions such as academic, administrative, recreational or residential.

Educational institution - an institution dedicated to education institution, establishment - an organization founded and united for a specific purpose [7].

Preschool - an educational institution for children too young for elementary school

School - an educational institution's faculty and students; "the school keeps parents informed"; "the whole school turned out for the game"

College - an institution of higher education created to educate and grant degrees; often a part of a university

University - a large and diverse institution of higher learning created to educate for life and for a profession and to grant degrees.

VIII. DESIGN OBJECTIVES

- To develop a layout which responds to the site opportunities and constraints and is well mannered in its interface with the surrounding residential setting of the college.
- To incorporate outdoor learning space and enhance the landscape setting of the college.
- To design the building that meet requirements for durability, maintenance, quality and safety.
- To design the building that meet requirements for durability, maintenance, quality and safety.

Key Words.

Are the main focus of research in the design objectives.

- | | |
|-----------------------------------|--------------------|
| - Site opportunities. | Quality of Living. |
| - Site constraints. | Massing. |
| - Interface with the Surrounding. | Permeability. |
| - Residential setting. | Transport. |
| | Design |
- Outdoor learning space.
 - enhance the landscape setting.
 - Durability, maintenance,
 - Quality and safety.

IX. DESIGN ASPECT

Design aspects are the further step in the support of objective and to link to further design phase. Following are the two aspect through which design will be originated.

Aspect A

Responsive Architecture

Responsive architecture is an evolving field of architectural practice and research. Measure actual environmental conditions to enable buildings to adapt their form, shape, color or character responsively [7].

Case Study

Al Bahar Towers Responsive Facade, Abu Dhabi

Masharabiya shading system was developed .Using a parametric description for the geometry of the actuated facade panels. The screen operates as a curtain wall, sitting two meters outside the buildings' exterior on an independent frame. Each triangle is coated with fiberglass and programmed to respond to the movement of the sun as a way to reduce solar gain and glare [8].

Aspect B:

Stone Masonry

Types of stone:

Igneous stones
Metamorphic
Sedimentary.

Types of stone masonry.

Fixer Masons
Memorial Masons
Rubble Masonry
Ashlar Masonry
Stone Veneer
Slip form Stone masonry [9].

X. ARCHITECT BRIEF

Project Feasibility

Humanitarian design has become a popularized phenomenon in recent years, and it comes in all shapes and sizes. The word Humanitarian can be defined as “having concern for or helping to improve the welfare and happiness of people” Mostly, Humanitarian crises comes into account due to disasters either natural or human induced disaster.

Site Feasibility

The site will be remain the same because it is the border line of darra adam khel. It is easily accessible for darra adam khel people as well as for adjacent area like sharikra, banda, kalakhel, aka khel and janakore from where they can access to the building easily and free of risk. In case of any emergency like terrorism attack or any casualty we can move towards Peshawar city easily. Currently new militant building has been built in the site context which is the countable aspect of site security.

Social

Darra Adam Khel region has been affected by man-made disaster (Terrorism) from 2007-2104. Due to that act people of Darra Adam khel faced through many Humanitarian Crises such as social, cultural or economical. Education is one of the issue in those crises that many education buildings were damaged by the use of different explosions and Government Degree College Darra Adam Khel is one of the victim in that damaged buildings. Currently the building site is using as a militant base by pak army but they are noticed to shift to their concerned building which is opposite to the college.

Secondly, the local MNA Qaisar jamal also working to give a new building proposal and this is an opportunity to give my thesis as a live project proposal.

Economical

75% residence of darra adam khel belongs to middle class families because maximum number of people’s economy based on the local craft of D.A.K. So, they can’t afford as much expensive education and there are some students who are working as craft man for their economy resources so they can’t study outside dara adam khel such as in Peshawar, or Punjab, so they need their on setup where they can studying and after they can continuous their economy sources.

Educational

College level students of darra adam khel and adjacent area are currently studying at Govt high school Akhorwal which is at the distance of 1.5 km from the college site. Both College and school student faces many problems, college students occupied the space of school students and those student are studying in the tents. So, there is no as such facilities which are required for an educational institutes because lack of suitable special configuration or space requirement.

User Analysis

Primary users

There are 7 govt schools and 4 private schools in darra adam khel, from where every year educate 600-700 students to college level averagely and 200-250 seats are reserved for the non-locals. Same 500-600 students are in B.Sc. programs.

Secondly, 70-80 are staff users, (teachers, clerks, peons, drivers, guards, sweepers etc.)
(Source: From previous record of administration)

So, students and staff will be primary users of my building.

Secondary users

Secondary user will be:

Students guardians who's coming for admission purpose, for some function or due to some complain of their Childs.

Student friends, different societies like blood donation camp, other colleges students specially in sports week, carriers men, etc.

XI. CONCLUSIONS

The design is to represent the physical, cultural and historic context. The landscape can be made simple by applying mass planting of trees throughout the site. which can be subject to major site rectification and remediation.

Laboratory and lecture rooms, should be placed along the building's outer perimeter to display the building's function and activities. Main spaces should place in location which easily identifiable on each floor level. The laboratories should be positioned to one side because of storage of hazardous chemicals.

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