



Role of Humanitarian Architecture

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ABSTRACT: Beyond-the-walls architecture, which leads to humanitarian architecture, can be more gratifying. It functions as a catalyst for positive change in the community, making disaster recovery easier. Though architecture was once thought to help society's upper crust, it has been addressed by numerous architects throughout history to support the less fortunate. Such actions are extremely beneficial to society's economic, environmental, and social well-being. This article discusses projects in many locations that address people's needs and improve their quality of life.

KEYWORDS: Role of architect, Social architecture, Humanitarian architecture, Public interest architecture, Society, Culture

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I. INTRODUCTION

Architects consider and respond to any situation, and then use design to solve it. We are now living in an era of robotics and machines, and we have forgotten how architecture served as a catalyst by addressing societal issues through the medium of design. The solutions are through a canvas of sketches based on the vision that will have a good impact on the social-cultural fabric as a whole.

II. HUMANITARIAN ARCHITECTURE

"Years ago, when I said architects should get involved in humanitarian issues, people laughed at me. Design isn't only about aesthetics, it's about problem-solving and we have a planet plagued with problems."
Quoted by Cameron Sinclair, co-founder of Architects for Humanity.

Humanitarian aid is described as assistance to persons and communities in need. Humanitarian architecture entails delivering the same via constructed and spatial forms. It will also prioritize welfare over beauty. Shelter for all is the motto of the majority of the country's architecture non-governmental organizations, which will automatically promote community resilience and achieve socioeconomic improvements. It's all about bringing communities into the design process by knowing their needs rather than simply putting a roof over their heads. Infrastructures that shape people's daily lives are far more important than name-brand sustainable badges.

2.1 Hassan Fathy (1900-1989) Architect of the poor *The New Gournia village, Egypt.*

In his whole lifetime, Hassan Fathy kept searching for Architecture for the users of the local context. He always wanted his vernacular culture to be uprooted all over the Arab region instead of the western culture which was booming in the early 20th century in Egypt. He wrote *"In modern Egypt there is no indigenous style. The signature is missing; the houses of rich and poor alike are without character, without an Egyptian accent."* - in his famous book (Architecture for the poor)

Even when Egypt was under colonial authority, Fathy always strove to promote Egyptian culture and Arab identity. The founding of New Gournia was caused by the removal of residents from the location when they took out the rock from a pharaoh's tomb. Fathy was commissioned for the New Gournia project, and his only reference was the Old Gournia, which contained mediaeval Cairo's streets, palaces, and residences. The village's

goal is to provide a low-cost solution to the problem of transferring the entire town. The town was designed to serve as a prototype with a restricted number of unit kinds, but Fathy went above and above to meet the needs of specific users. (Figure – 1). In Architecture for the poor book he wrote a line which sum up this entire case study is

"In Nature, no two men are alike. Even if they are twins and physically identical, they will differ in their dreams. The architecture of the house emerges from the dream; this is why in villages built by their inhabitants we will find no two houses identical. This variety grew naturally as men designed and built their many thousands of dwellings through the millennia. But when the architect is faced with the job of designing a thousand houses at one time, rather than dream for the thousand whom he must shelter, he designs one house and puts three zeros to its right, denying creativity to himself and humanity to man".

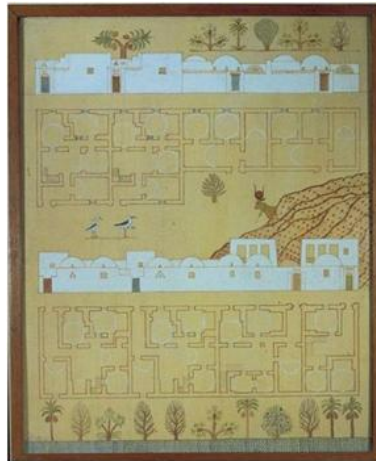


Figure 1: Gouache of New Gourna houses 1946

(Source - <https://arab-aa.com/2011/07/19/hassan-fathy-between-art-architecture>)

2.2 A school that transformed entire community - Primary school in Gando by Kéré Architecture

In Gando village (Burkina Faso), a school was built that transformed the entire community socially, economically, and culturally. This project may appear to be an attempt to highlight an individual's talent in order to uplift and drive his community, but it also reflected an attempt to involve local residents and users in the design and construction phase of the school. Diébédo Francis Kéré, the founder of Kéré Architecture, wanted to help his community and preach to his villagers the importance of education. He didn't want this structure to reflect either Western or African culture; his primary goal is to create an educational facility that uses locally available materials like clay brick and corrugated sheets to combat the region's scorching heat. (Figure 2)



Figure 2: Gando school, Boulgou, Burkina Faso

(Source- <https://www.behance.net/gallery/106785819/Gando-Primary-School>)

Gando will see severe rainfall throughout the winter season, thus corrugated sheets have been installed in the roofs to keep water out. However, in hot climates, the sheets absorb heat, therefore to avoid this, he utilized clay bricks to keep the interior cold. Surprisingly, no mechanical or artificial climate regulation is required for this local vernacular method. No one in their town knew anything about construction, so Kéré gathered villagers and trained them to help with the construction process. This is referred to as "Building with

Community Labor." Obviously, schools require living quarters for teachers, and to add to this single school structure, they had to construct a large number of buildings in Burkina Faso.

"One thing makes another thing happen, so we started to build a lot in village. Then people started to discover my work. People started to ask me to do the same for them" said Kéré in his interview to Dezeen. In 2004, the Aga Khan Award for Architecture was given to Gando Primary School. Kéré Architecture now employs between 300 and 400 carpenters, welders, and bricklayers. The most important lesson learned from this project is the importance of incorporating local people (users) in the construction process.

2.3 Micro material solution to a Macro global issue Paper log house by Shigeru Ban in Kobe, Japan.

Shigeru Ban is an innovative creator in the field of architecture, His style of work is "invisible structure" known for his innovative work with paper specifically recyclable materials, low cost, and efficient house for disaster victims. Pritzker Jury cited Ban for his innovative use of material and his dedication to humanitarian efforts around the world, calling him *"a committed teacher who is not only a role model for the younger generation but also an inspiration."* In 1995 Kobe faced an earthquake, the survivors of Japan were seeking solutions and help, Architect Shigeru Ban designed a temporary shelter to meet the emergency needs caused by the disaster temporary constructions which was the "Kobe Paper Log House" concept each shelter provides an area of 16 sq.mt. (Figure - 3)



Figure 3: Paper log house in Kobe, Japan
(Source - <http://www.shigerubanarchitects.com>)

They employed recyclable cardboard tubes that were efficient, easy to build by themselves, and easy to transport, and were resistant to cheap cost, with simple application and easy accessibility, as well as withstanding adverse climatic conditions. Volunteers erected 80 shelters, each in less than 10 hours, with the help of Japanese and Vietnamese students. A single unit costs less than \$2000 in materials. The paper tubes are 106mm in diameter and 4mm thick, with a tenting material roof. Each dwelling is allotted 1.8m of shared area space. Architect Shigeru Ban developed the paper log house concept in Bhuj, India, which was finished in 2001. Shigeru Ban set a standard by not only providing a typical refugee shelters but also he did an experiment with materials that has an impact in architectural industry even today.

2.4 Architecture can heal us - Casa Rana by MiE

MiE is an Italian NGO formed by group of architects. Ever thought of collaborating local skills with foreign minds to get an outcome that will benefit and enhance lives. Made in Earth did exactly by hiring local people and exchanging foreign people in their esteemed project called Casa Rana (Figure-6), A home to cater 15 HIV Positive children and a mother who care-taking these children. Architects of MIE thought that diseased people can be cured through Architecture and colors.

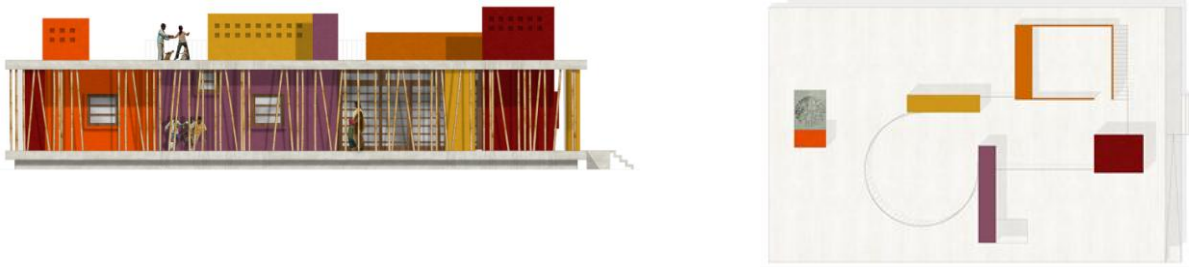


Figure 6: East elevation and Plan of Casa Rana, Thiruvannamalai
(Source- <https://urbannext.net/casa-rana>)

Whenever architects involve the local people in construction & management they get the sense of belonging and identity. Virtuous example of why responsible architecture need skills from local labors as they knew the climate and material better. Anaipiranthan village in Thiruvannamalai is one such place where most of the month's hits 40° temperature. The house is full of colors and it is creating vibes into those children. As shown in Figure:7 Red caters kitchen, Yellow and purple are for sleeping rooms for children, Orange is for Children caretaker called as 'the mummy'

These Children need sense of protection and free to play spaces. Two openings in the roof allow light to enter into their soul and cleanse them. Architects should always deal with ground realities to brand it as a 100% Eco product, they could have easily chosen Bamboo as their primary materials instead of concrete but one should understand that in Thriuvannamalai concrete is way cheaper and readily available than Bamboo. Casa Rana is an amalgamation of both Traditional construction techniques and modern material market. Casa Rana experimented this project by involving local community into building process and resulted smaller intervention of community driven programs.

2.5 Visioning through bricks - Pirouette house by Wall Makers

Vinu Daniels, Architect from Wall Makers firm, Kerala designed Pirouette house. (Figure - 7). Brick kilns in Trivandrum, are in the lap of extinction due to modern machine made wire cut bricks, so this project is even though an experiment with modern construction technique with local vernacular materials it still stands as a piece of life saving experiment for local agriculture based industry in the state. This residence is a bold attempt and an experiment towards local vernacular practice. He tried to preach/educate the importance of local vernacular material by showcasing it in a most fashionable project and also, he recovered the extinction of brick kilns in Trivandrum. This one single project can set an example for how an Architecture outcome or an architect's social responsibility can impact a context socially, economically and environmentally.



Figure 7: Pirouette house by Wall Makers
(Source - <https://www.archdaily.com/948757/pirouette-house-wallmakers>)

III. CONCLUSION

People are involved through community participation, and their housing problem is solved through innovative, cost-effective building, resulting in design that serves the community. Experimentation and creation are aided by uncommon constraints and exceptional circumstances. Recognizing the value of a comprehensive strategy, the organization's efforts to help communities become more resilient go beyond the construction industry. Humanitarian design enables architects to return to their profession's roots.

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