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# ARCHITECTURE+DESIGN

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40 YEAR ANNIVERSARY

## CELEBRATING FOUR DECADES OF EXCELLENCE IN DESIGN

THE NAMES WHO MATTER AND WHAT MATTERS TO THEM

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ARCHITECTURE+DESIGN

# Design for Change

Can Design Change the World? We asked.
We got a resounding yes as an answer.
This issue, we asked, architects, designers and urban planners how they would use "Design" as a tool to change the world. From urban planning, public infrastructure, to architecture in response to disaster, we present some really interesting insights from the world of design.

VIEWPOINTS

**Akshat Bhatt**
Principal Architect, Architecture Discipline

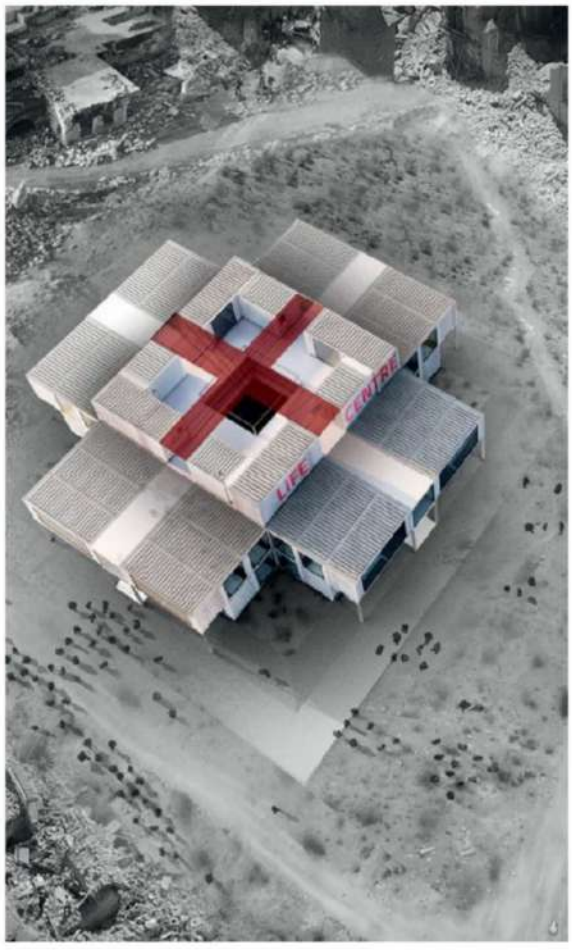
# MOBILISING ARCHITECTURE IN TIMES OF EMERGENCY

Architecture has a critical role to play in combating emergency situations with quick, innovative and efficient design.


THE COVID-19 pandemic exposed a severe lack of healthcare infrastructure across the world. India has also fared poorly on health infrastructure indices for many years—the Human Development Report of 2020 shows a national ratio of only five beds per 10,000 people. This inadequacy was further exacerbated during the pandemic resulting in medical infrastructure being placed under extreme stress.

As governments around the world were forced to set up temporary and makeshift hospitals to help deal with the growing number of patients, it became apparent that upgrading the infrastructure by conventional methods to meet the needs of a burgeoning population was too slow a process. The pandemic brought to light a lacuna that needed immediate intervention, and it was under these circumstances that we began to look at the potential of design to help address the situation. I believe that in such instances we need to do two things—

THE DESIGN OF BOTH LIFECMF AND THE MOHALLA CLINICS MAKES INNOVATIVE USE OF INDUSTRIAL WASTE TO TACKLE AN URGENT SOCIAL ISSUE, THAT OF PROVIDING CRITICAL ACCESS TO HEALTHCARE.




have a longer development cycle, which may be larger, slower interventions, and an immediate system that can be rapidly deployed. In unprecedented scenarios such as the outbreak of the Coronavirus, nimble and agile systems are the need of the hour, which can work to augment existing infrastructure.

In this light, we at Architecture Discipline began to develop ad hoc healthcare facilities using upcycled shipping containers for emergency deployment. Life Community Medical Facility is a prototype we created in which shipping containers are adapted for multiple specialised functions, coalescing to form an integrated healthcare centre in its locality. The use of pre-equipped shipping containers lends the advantage of easy deployability to any part of the world with plug-and-play operation.

We also approached the Government of Delhi with a scaled-down version of LifeCMF, designed to bring healthcare to the neighbourhood level. The idea was accepted as part of the government's Mohalla Clinics programme and is set up with the support of TATA Power DDL. Made from upcycled shipping containers, the clinics bring affordable primary healthcare to regions with limited access to larger health facilities. Composed of two 20-foot-long containers, the Mohalla Clinics can be entirely prefabricated and installed with minimal on-site construction. Because of this, the clinics can be deployed rapidly and made operational within 3-15 days, depending on the time taken for container procurement.

> I THINK THE ONE LESSON THAT WE MUST CARRY FORWARD IS THAT THE FUTURE IS UNPREDICTABLE AND THIS CALLS FOR INNOVATIVE SOLUTIONS, CREATIVE THINKING AND COLLECTIVE ACTION AT THE TIME OF A CRISIS. DESIGN CAN PROVE TO BE A VITAL SOLUTION.

The design of both LifeCMF and the Mohalla Clinics makes innovative use of industrial waste to tackle an urgent social issue, that of providing critical access to healthcare. Shipping containers provide the significant advantage of the ease of transportation. They can be transported by road or sea and, in extreme cases, can be airlifted by helicopters. Combining the benefits of prefabrication, quick deployment and ease of transportation, the use of shipping containers makes the clinics especially viable for crisis situations like pandemics as well as wars or natural disasters. By upcycling industrial waste, these clinics also eliminate the energy consumption and pollution due to new construction.

Following the model in Delhi, Punjab too has initiated the set up of 16,000 Mohalla Clinics in all of its constituencies. Governments of Nepal and Australia have also reached out for the set up of similar facilities in their countries. With a growing occurrence of epidemics and climate-related disasters, solutions like these can bring emergency relief to areas that need it the most.

I always say that architects and designers need to stop pretending to think about the world and take action. I think the one lesson that we must carry forward is that the future is unpredictable and this calls for innovative solutions, creative thinking and collective action at the time of a crisis. Design can prove to be a vital solution.