TEMPORARY ARCHITECTURE : FLEXIBLE AND INNOVATIVE

INTRODUCTION

Temporary architecture is a fertile ground for testing ideas, examining places, popularizing new concepts and technologies. Taking a wide array of forms, from disaster relief projects and utilitarian structures to design experiments, architectural statements and playful installations, transient structures showcase alternative visions for the built environment, opening up new possibilities and questioning established norms. As temporary architecture now seems at odds with sustainability imperatives, the following discusses the value of temporary architecture as a vehicle of experimentation, advancing design and engaging communities.

TEMPORARY USE OF VACANT SPACE

"It's a living lab where businesses and organizations can experiment with new practices in art and design, co-creation and sustainable development," says Maxim Bragoli, co-founder of La Pepin ere, the design firm responsible for the village, along with dozens of similar interventions in Montreal's public spaces.

Working on a shoestring budget of government grants, La Pepin ere has transformed derelict alleyways into lively markets, opened outdoor bars in the midst of Montreal's frigid winters, and turned a neglected downtown square into a lively gathering place with a pop-up bar, urban farm and market stalls. "Compared to something permanent, project can take place in a very short time frame and with a very small budget," says Bragoli. "Another advantage is that it's agile – once it's in place, it can be adjusted depending on the needs of its users."

PAVILIONS IN TEMPORARY ARCHITECTURE

Temporary structures in pavilions that showcase the diversity in their intent and usage while experimenting with materials, forms, and colours.

Second Home Serpentine Pavilion – Los Angeles (Colours)

SUSTAINABLE MATERIAL IN TEMPORARY ARCHITECTURE

Biobasecamp Pavilion – Eindhoven

Designed by – Studio Marco Vermeulen

A timber structure was built to demonstrate the structural possibilities of the material in an attempt to urge more sustainable construction. The pavilion acts as an interactive space for the citizens as it invites visitors to the exhibition on the ground level or to climb up to the roof level for taking a breather within their busy schedules.

The structure is built with cross-laminated timber (CLT) and is said to lower CO2 and nitrogen amounts in the air to work against the dooming climate change.

Biobasecamp Pavilion – Eindhoven

Upcycled Pavilion – Mexico

Designed by – BNKR Arquitectura

The Upcycled Pavilion was a temporary structure constructed for Expo CIHAC – 2012. The whole installation was done on-site with around 5000 Coca-Cola crates to spread awareness about upcycling and to demonstrate how good design can come out of waste and less money, or in this case, no money at all. This pavilion was used in the expo to serve as a cafeteria.

TECHNOLOGY AND INNOVATION IN TEMPORARY ARCHITECTURE

Poem Pavilion – Expo 2020, Dubai

Designed by – Es Devlin

Expo 2020, Dubai (now moved to October 2021 due to Covid-19) will see this massive conical pavilion shooting out off the ground. The cone-like structure will be made of communicative LED panels which will use Artificial Intelligence to generate and display poems. 'Message to space' – an idea derived from one of Stephen Hawking's final projects, 'breakthrough message' forms the basis of the concept.

Poem Pavilion – Expo **Maimi Gateway**

Design Miami shop's155sq m gateway pavilion for its design festival embarked on yet another material exploration. Working in collaboration with 3D printing firm Branch Technology, Flotsam & Jetsam was created with bamboo printed in a lattice-like grid, creating a structure that extends outwards like a coral reef, with a variety of open and enclosed spaces, including a bar that provided enough space for a thousand champagne flutes. "3D printing gave us the freedom to go with this amorphic form," says the project's architect, Rebecca Caillouet.

ENTERTAIMNENT AND COMMUNITY- ENGAMENT IN TEMPORARY ARCHITECTURE

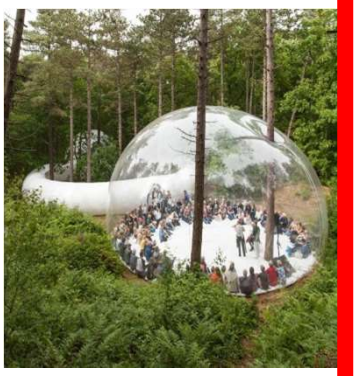
ENTERTAINMENT

Circular Garden Pavilion – Porto

Designed by – Diogo Aguiar Studio

Two concentric wooden circles formed the pavilion in a cultural institution designed by Álvaro Siza in the city. The curvilinear façades control the incoming natural light and aid in keeping the interior dark enough to host film screenings.

COMMUNITY ENGAMENT



Oftentimes, rule-breaking structures are meant to engage communities, enriching the experience of the public realm. The Berlin-based design studio Plastique Fantastique operates in the field of temporary architecture, creating performative urban settings. Its pneumatic structures create alternative spaces, provide the framework for temporary activities, acknowledging the value of experience and play.

TEMPORARY ARCHITECTURE IN CRISIS

The world is currently dealing with a pandemic. Other than that, it faces a crisis in one part of it or the other. Beyond that, the world is constantly changing too. The answer to all these problems is temporary architecture. These structures can serve as relief centres, temporary hospitals, rescue centres, schools and a lot more.

Prefabricated Vaccination Pavilions – Italy

CASE STUDY-Onagawa Container Housing

The earthquake and tsunami in East Japan in 2011, devastated many homes in the northern Tohoku region of Japan. One of the communities affected was a small fishing town on the northern side called Onagawa. The tsunami destroyed the ports and many fishing communities along the coastline as well as multiple residential localities in the town. Following the aftermath of the disaster, Japanese architect Shigeru Ban, under the local government, created the Onagawa Container Housing along with a community center and an atelier, in response to the citizen's needs.

One of the major setbacks in the construction of these container housing in the Onagawa region was the topography. The coastline has very little flat land which leads into a hilly region, therefore leaving very little space for construction. The only area that was available to construct this housing was a baseball field, which was limited in size for individual single-storey buildings. To resolve this, Ban designed nine buildings, each two–to–three stories, stacking marine transportation containers in a checkered pattern. In the limited flat land available, Shigeru Ban's studio designed 189 multi-storeyed temporary housing for the displaced residents of the Onagawa region.

Concept -Temporary housing due to disaster like tsunami , earthquake etc.

The design was to quickly and inexpensively construct temporary housing which would cater to all the needs of the people. Ban stacked shipping containers in a checkerboard pattern, creating an open layout for the houses and enabling more light and airflow. The arrangement also allowed for the privacy of the families and the availability of parking space. An added bonus of using shipping containers was the quick assembly of the prefabricated units, therefore cutting construction costs. While normal housing for relocation is created under government guidelines and aims only to solve the time, space, and budget restrictions, Shigeru Ban's design for the people of Onagawa was created in response to the needs of the people as well. The design has a market and a community center in the centre of the site, offering a gathering space for community members. The market also served as a platform for local vendors to open their shops for their fellow townsmen affected by the tsunami. The market is formed with a ring of containers to provide space for the shops and the central space is covered with a tensile roof for weather protection. The walls of the community center are formed with white shipping containers and are capped with a plywood gable roof. The use of triangular clerestory windows on either side provides ample natural light in the interior space. The atelier was designed as a work and play space for the children. It is made of paper tube columns and beams and has built-in cabinets for storage.

"Compared to something permanent, an temporary project can take place in a very short time frame and with a very small budget,". After earthquakes, 'permanent' buildings were easily destroyed, so what is permanent? Even concrete buildings are taken down in years if a developer wants to make something else." says Bragoli.

CONCLUTION :-Temporary structure helps to designers to explore(experiment) materials and technology that can help to create some more artistic , innovative,sustainable,cheap ,easy to construct and flexible that can be used for not just for public spaces but also can be constructed easily at time of crisis.

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