



contact@housing-now.org

We are living in challenging times.

It is estimated that over **1.6 billion people** worldwide lack access to adequate housing. This figure includes individuals living in informal settlements, slums, inadequate shelter, or homelessness.

HOUSING NOW

- Who are we?

Housing NOW is a social enterprise based in Myanmar, specialising in **prefabricated low-cost bamboo housing**. Our company won the **MIT SOLVE Award 2022** - Climate: Ecosystems + Housing. Through our innovative and sustainable technique we can drastically lower the construction price. The combination of prefabricated structures and a modular design allow us to provide houses quickly and cheaply.

We can build houses for the price of a smartphone.

www.housing-now.org

[@housingnow.designs](https://www.instagram.com/housingnow.designs)

A house for the price of a
smartphone ?



Advantages of our bamboo construction system:

- Carbon-negative construction system
- Local sourcing of building materials
- Pre-fabrication, ease of transportation and fast deployment allows for operations in challenging and untouched territories
- Modularity enables fast expansion and retraction of projects
- Disassemblable and movable
- Reduction of construction and implementation cost
- Support of local economies & communities by employing local materials and workforce
- Bamboo-native territories cover approximately 30% of the world's land surface
- Although difficult to calculate, we can estimate that bamboo is native and plantable in around 50% of the world's land surface
- Lower rate of waste production
- Cutting-edge bio-mimetic design
- Less monoculture and independence from industrial food production
- Possibility of combining housing and self-sufficient food production in the same project
- Holistic projects strengthen communities
- Lower living costs for end-users

MIT | SOLVE | HOUSING NOW



Housing NOW project to solve key market issues

Housing issues to tackle

Lower income class in Myanmar can't afford a decent living and there is a clear shortage of new housing units.

1. Poor housing quality at a low cost while decent quality is too expensive

2. The time to implement affordable housing is too long, even less suitable in emergency scenarios

3. Housing units don't meet the household requirements e.g (materials, household size...)

Housing NOW Solution

We produce quality and durable structural frames in large quantities to reach an affordable price for low to lower-middle class in Myanmar.

1. Accessible quality: prefab of structural frames, locally sourced and cost-effective materials make the house robust and affordable

2. Faster building process: frame elements are prefabricated at the 'production HUB' and quickly deployed on-site

3. Flexible design: innovation of design and construction process opens up various options for the household

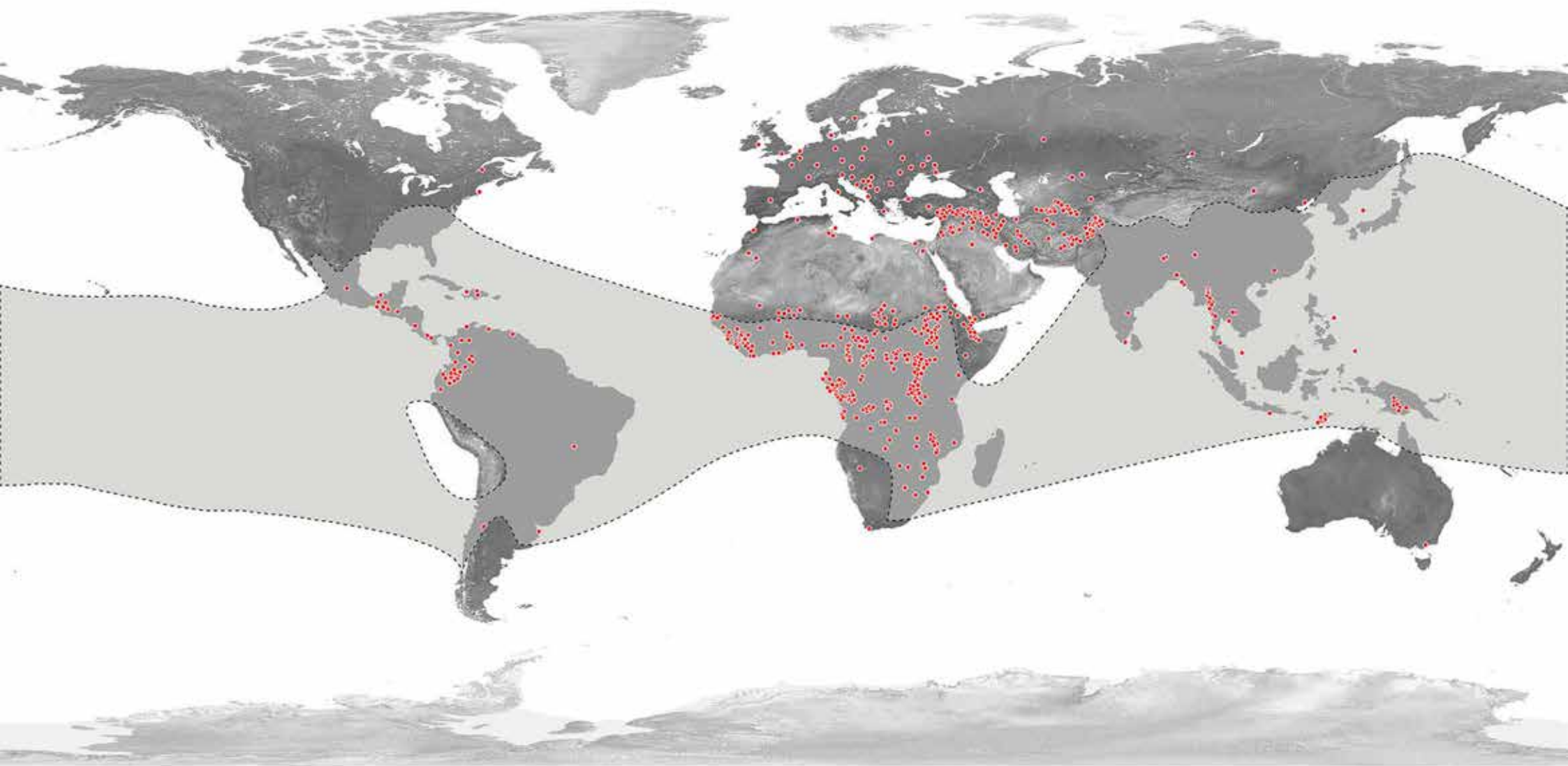
Competitive advantages

1. Sourcing the right material: taking advantage of untapped resources

2. Prefabrication in a factory: to build in large scale a high-quality product in record-breaking time

3. Synergies with other companies will allow a broader audience to afford decent housing

World map overlapping globally displaced people areas + refugee camps
& native bamboo territories



Affordable Housing

	HOUSING NOW
Target Price	1000 dollars
Dimensions	12 m2 (modular)
Building Method	on-site + prefab
Character	permanent
Participatory	yes



Moria refugee camp / Lesbos, Greece / 2019 / temporary settlements / source: www.thenewhumanitorion.org



Slum in Thanlyin / Yangon, Myanmar/ permanent settlement / source: Blue Temple



Slum in Shwepyithar / Yangon, Myanmar / permanent settlement / source: Medical Action Myanmar

Our portfolio

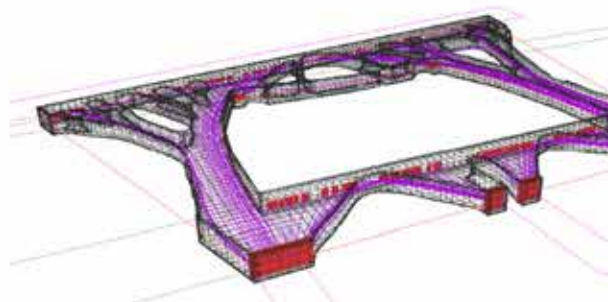
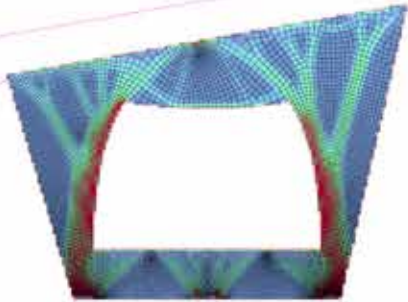
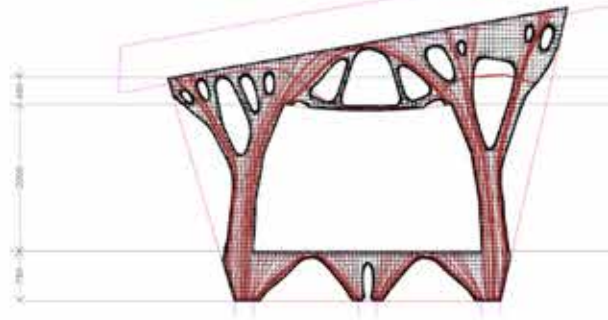
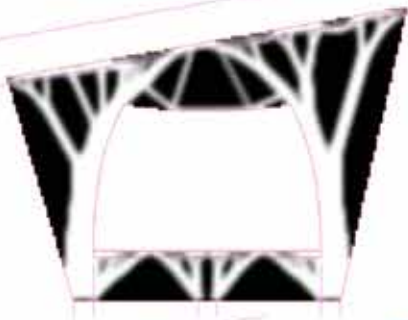
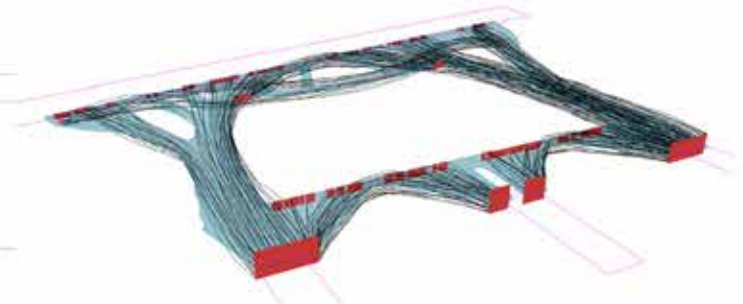
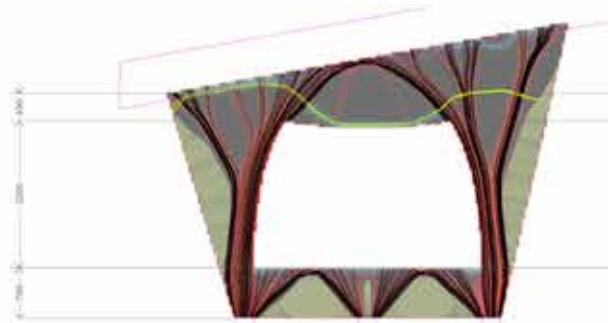
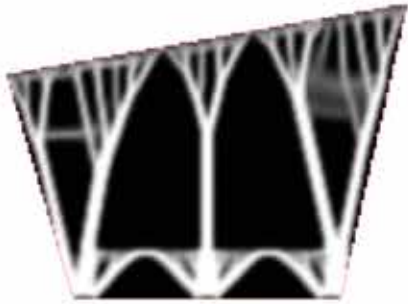


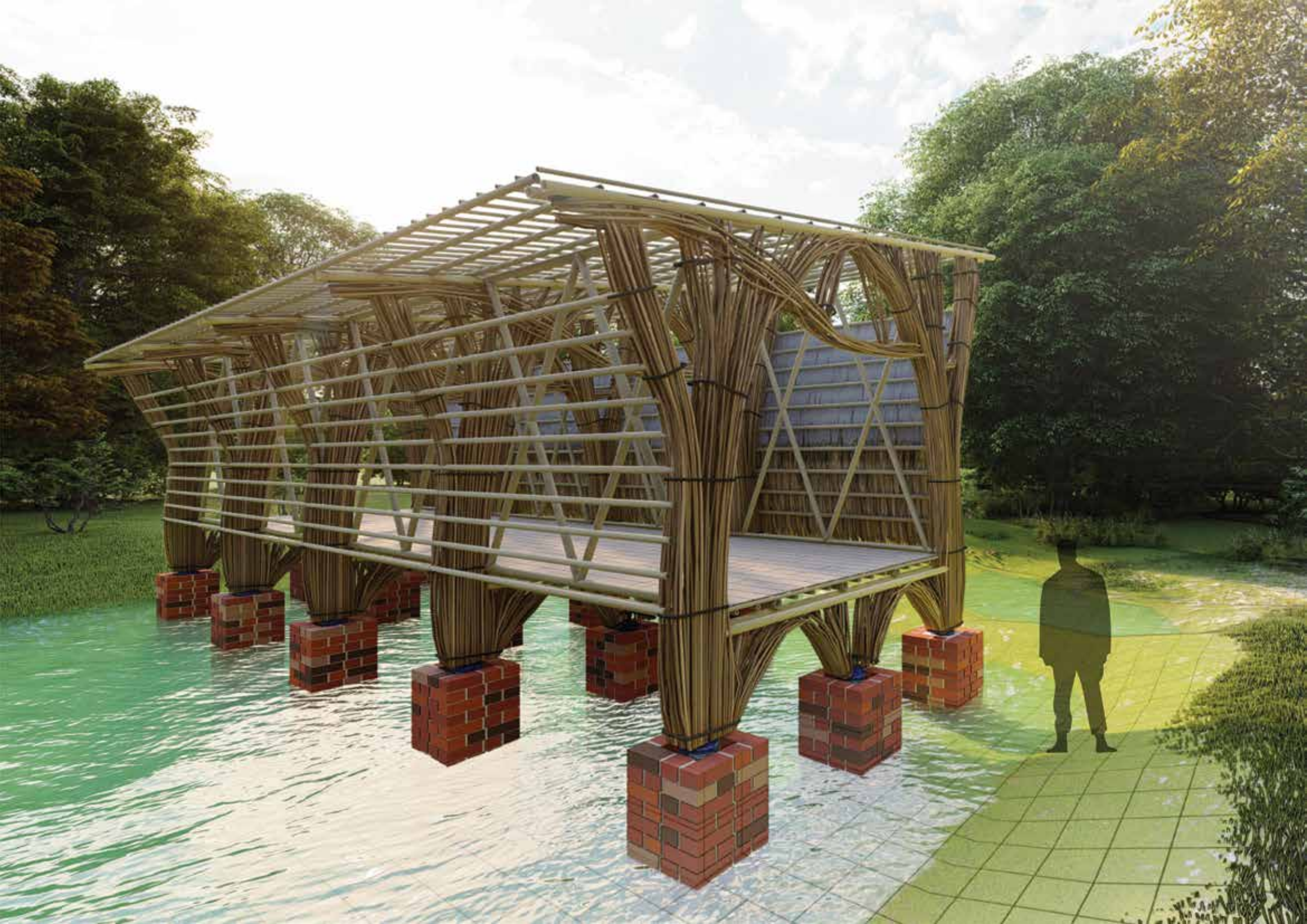
Blue Temple / Bamboo Playground / Yangon, Myanmar, 2019



Blue Temple / Plot ABC / Yangon, Myanmar, 2021

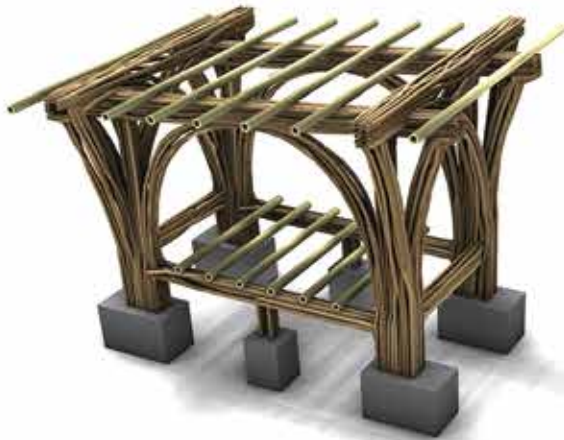
Computational Design Process 2D Topology Optimization





Modular system

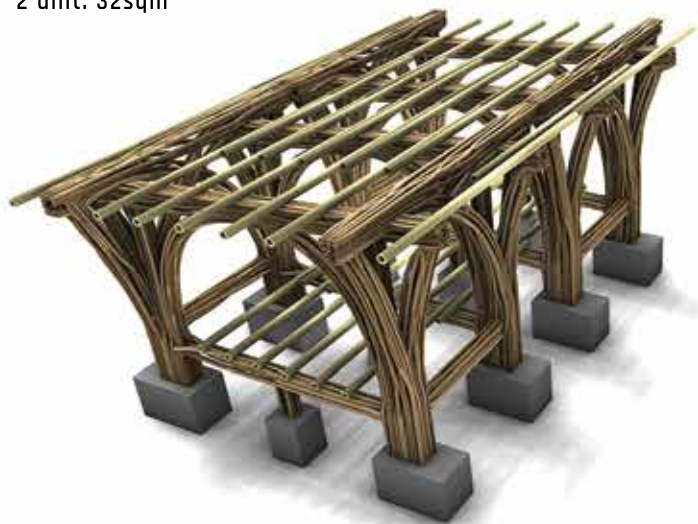
1 unit: 12sqm



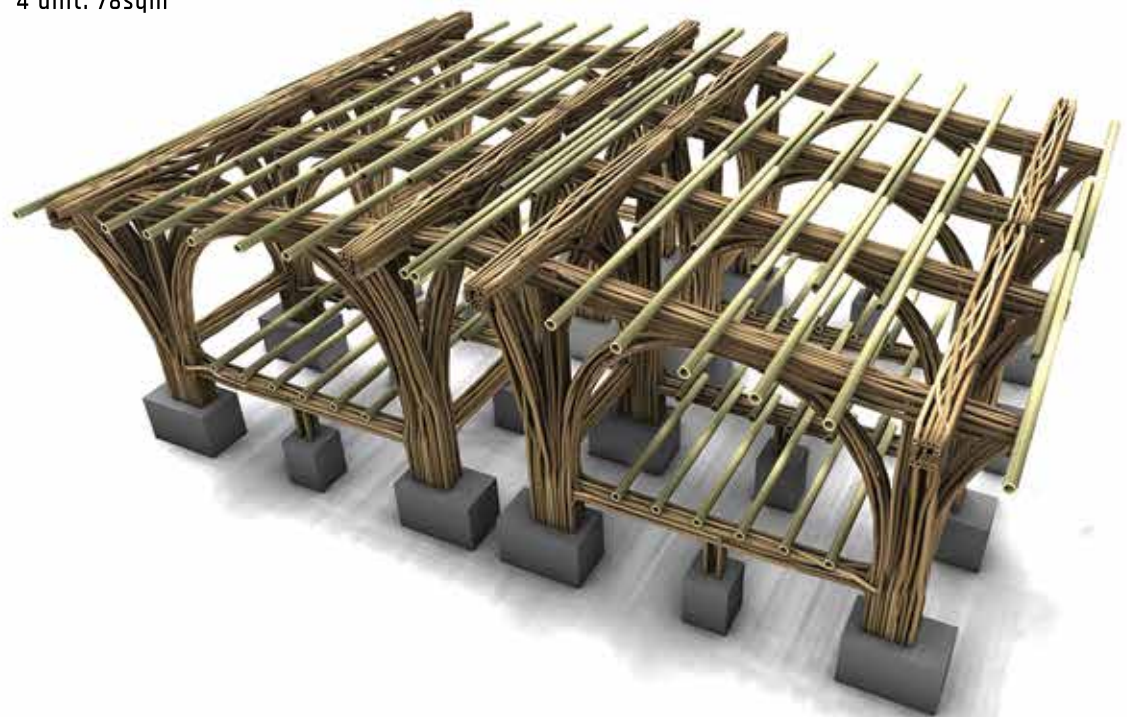
transportation



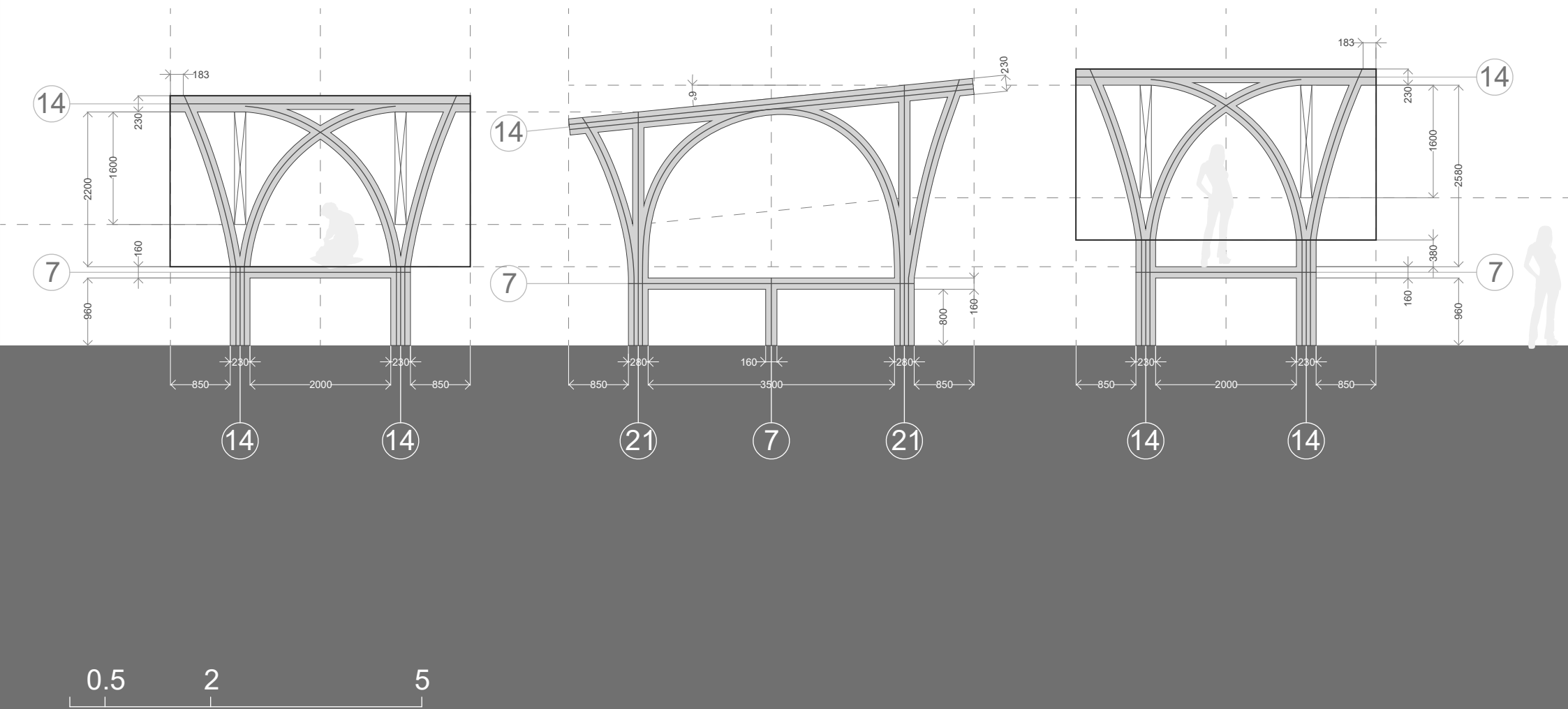
2 unit: 32sqm



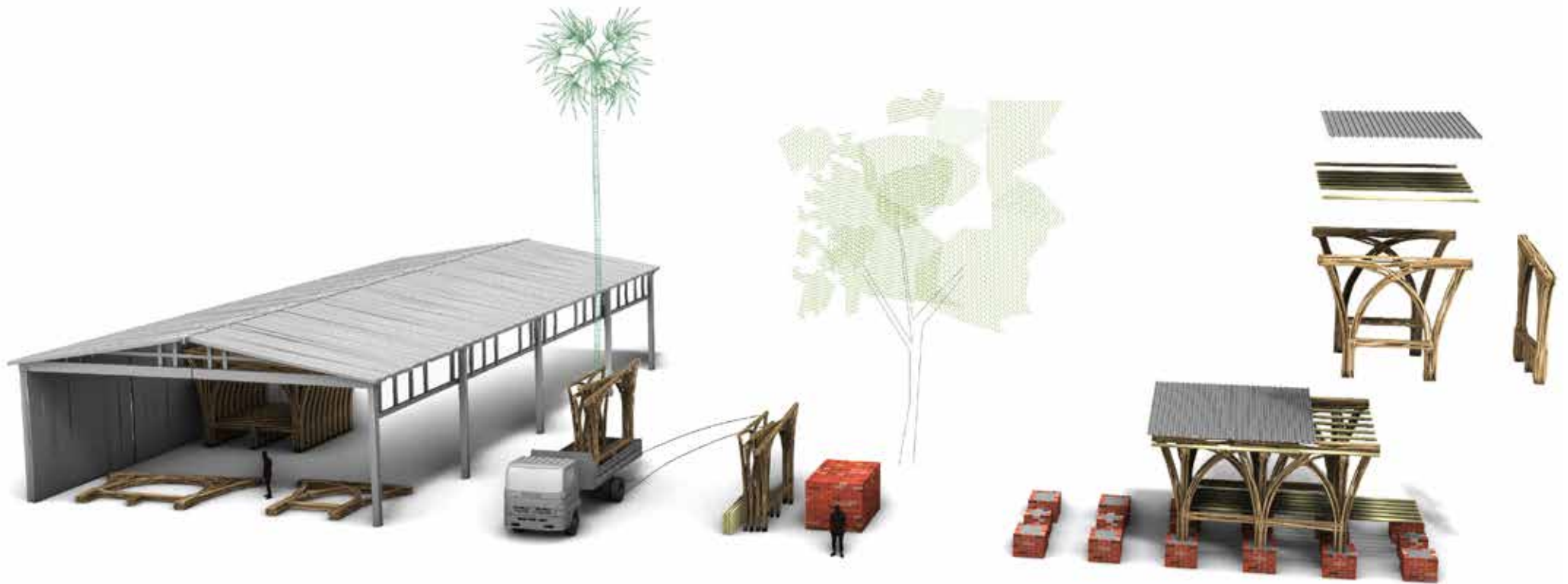
4 unit: 78sqm



Construction documents



Construction process



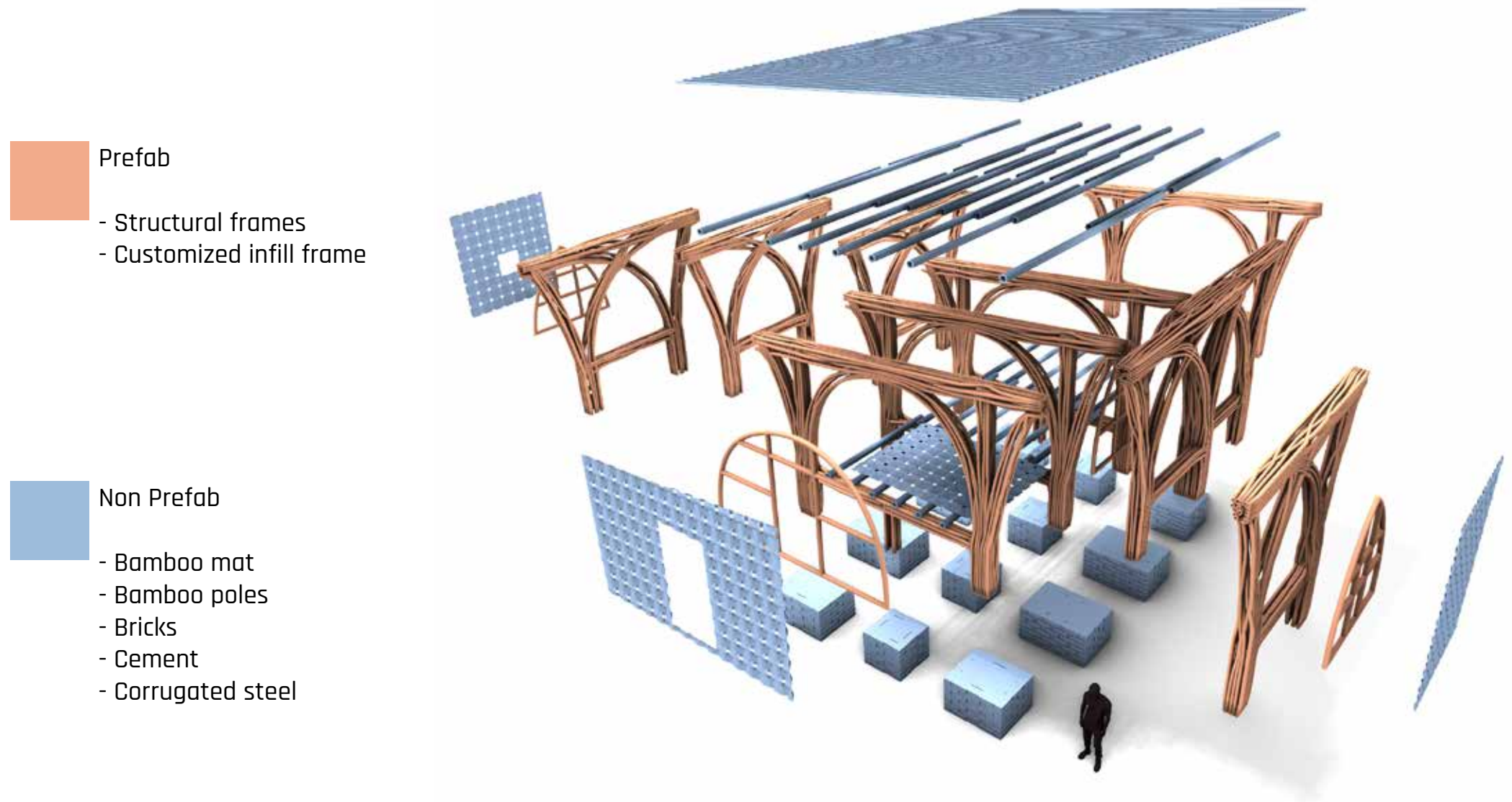
Prefabrication warehouse

Transportation

On-site assembly

Hybrid construction process

The house is partially pre-fabricated and partially built on-site with local communities



Transportation



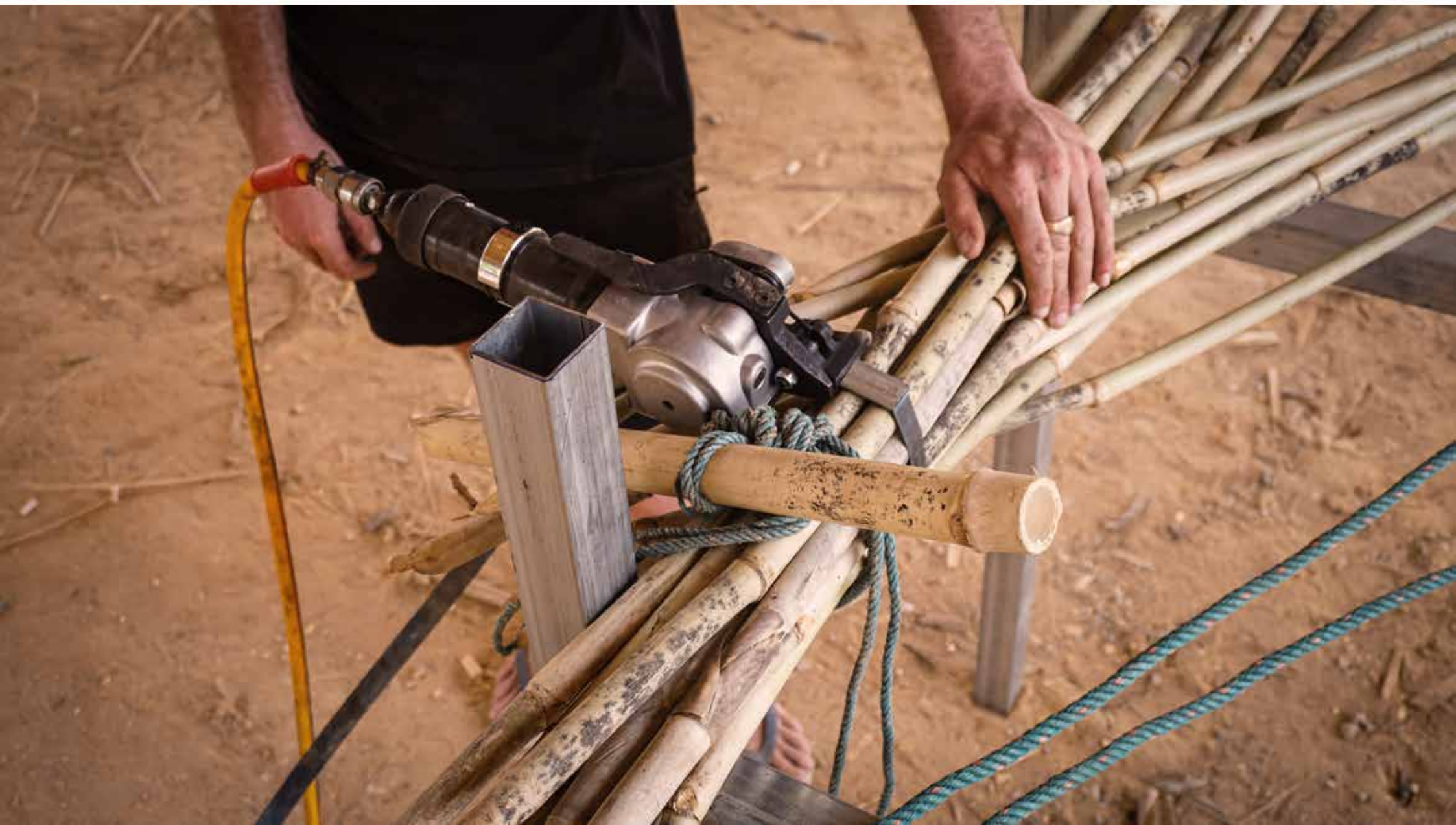
Frame construction detail



Formwork



Strapping process



Production center / Bago, Myanmar



Our methodology relies heavily on **computation, physical prototyping and build and break testing.**

This approach allows us to arrive to **radical and untapped design solutions.**





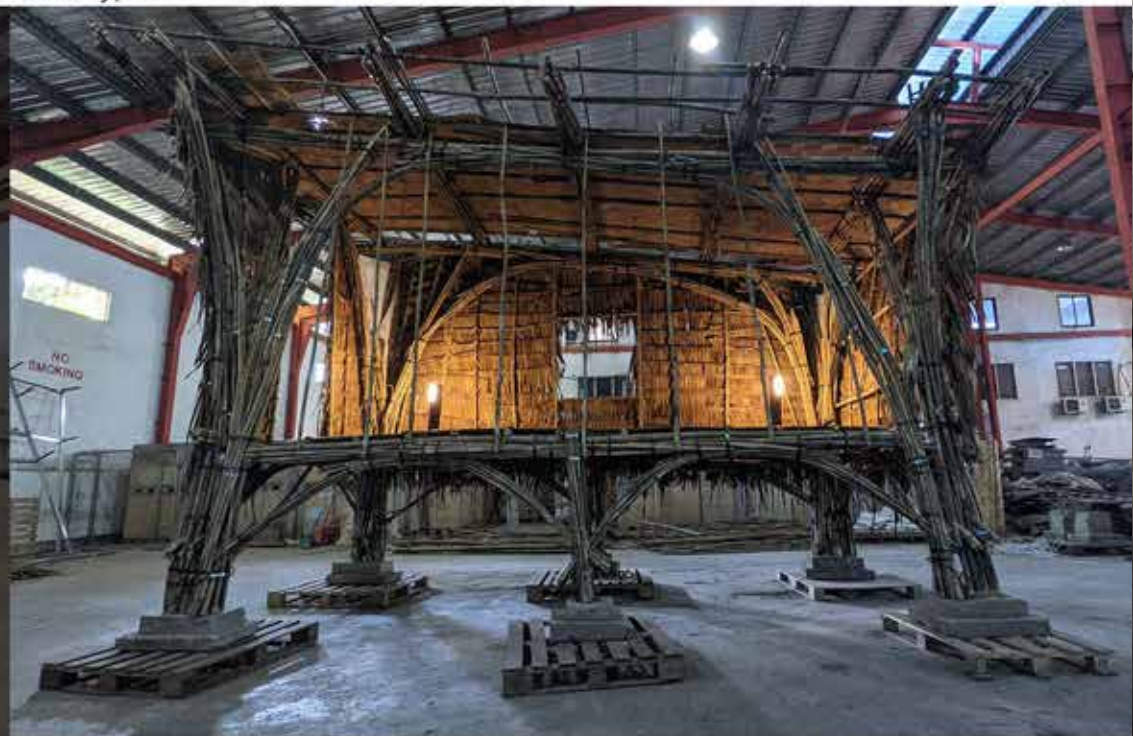
Prototype #1



Prototype #2



Prototype #3



Prototype #4

Prototype #4



Prototype #5

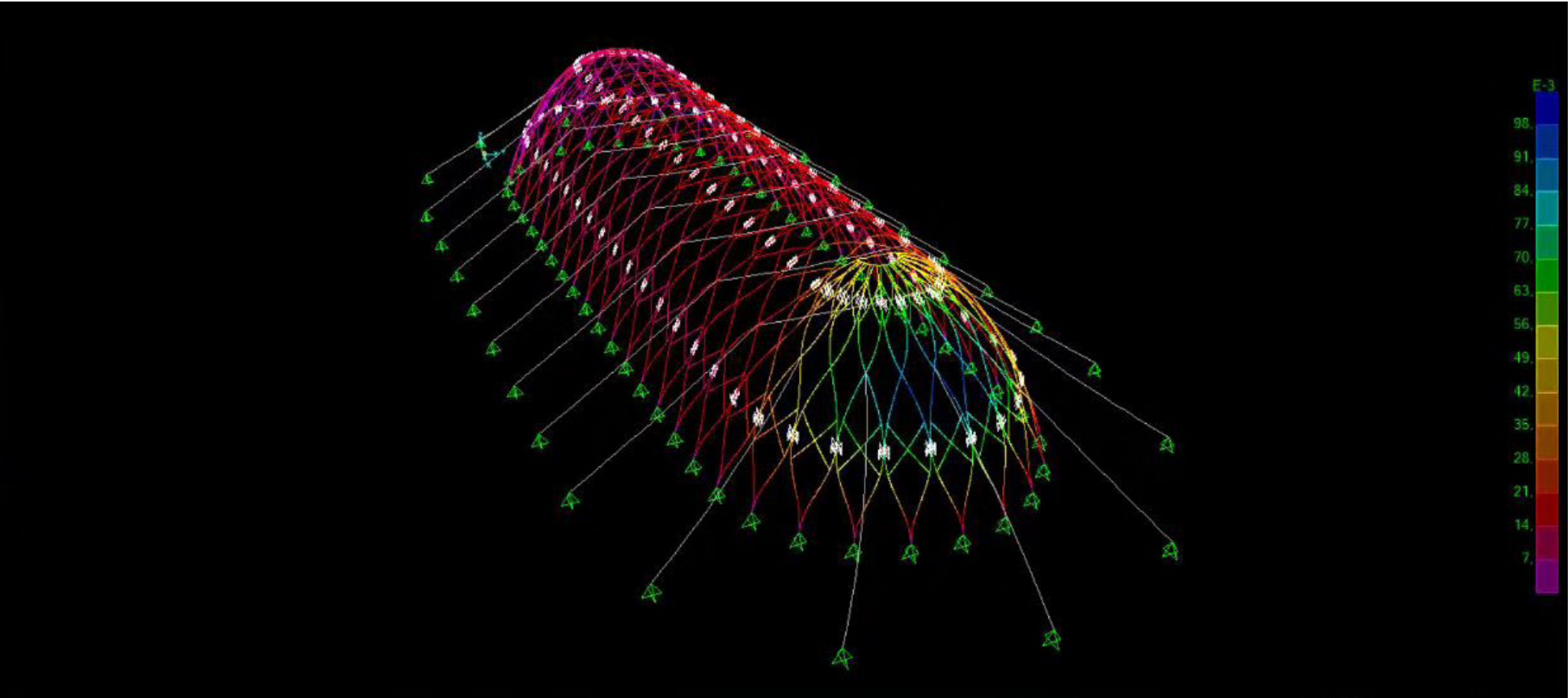


Build + Break stress testing - August 2022



Housing NOW Design + Build HUB concept, April 2023





1:1 prototyping, May 2023



Indiegogo campaign
Backing for 6 housing units achieved
August 2022



Pre-school / 32m² / Hmawbi Refugee Camp / 15 students
November 2022







Introduction day





Orphanage / 80m2 / Hmawbi Refugee Camp / 30 children
December 2022



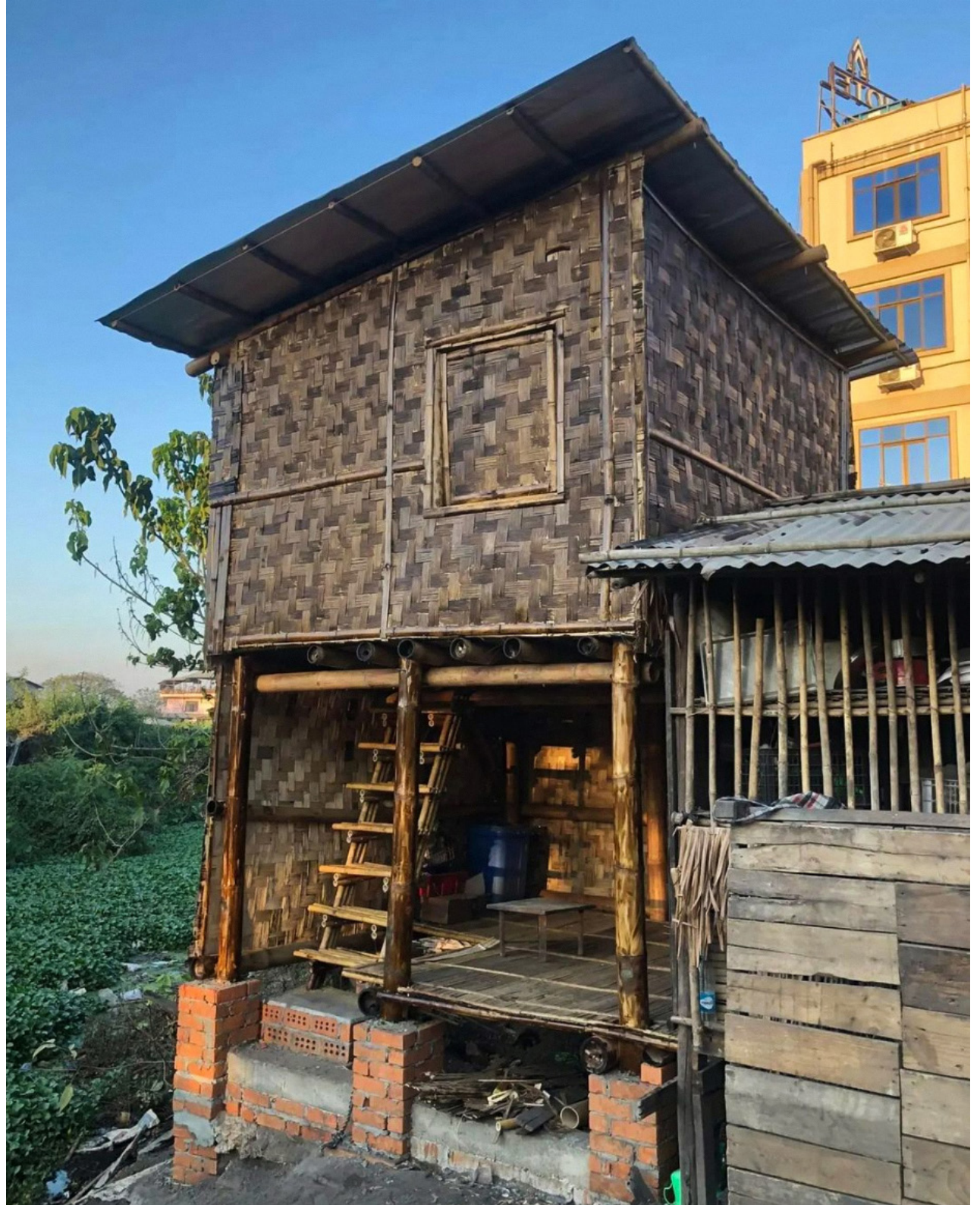




Inauguration event



Slum House / 12m2 / Yangon
March 2023



Family House / 12m² / Hmawbi settlement
June 2023



Process











Settlement day



Our team believes that **solutions** for the **housing crisis** will be **technological** and **community-driven**.

Therefore we focus on **augmenting computational design**, promoting **collaboration** and **exploring new radical ideas**, seeking **social and environmental change**.

Our research presents an opportunity for the development of **practical, impactful solutions** for **challenges faced by populations in developing countries**.

11 SUSTAINABLE CITIES
AND COMMUNITIES



The team



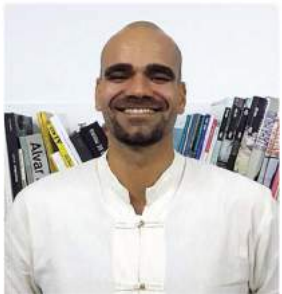
Raphaël Ascoli

Founder of Blue Temple, an architecture design studio in Yangon, dedicated in bringing creative and critical thinking into the architecture industry in Myanmar. Has initiated a number of projects in public space, mapping, academics and is now publishing a book on low-tech innovation in Myanmar.



Kyaw Zin Latt

Specialized in bamboo construction, he has been working with 'Habitat for Humanity Myanmar' with whom he built over 100 bamboo houses. Has broad experience working with NGOs, international volunteers and private clients.



António Duarte

Architect and visual artist. Partner of Blue Temple. Researcher in architecture, culture and technology. 10 years+ experience in architecture and art projects at different scales. His work has been exhibited in galleries, institutions and independent spaces in America, Europe and Asia.

The team



Hanna Flachs

Artist with a background in social studies. Bachelor in Business and Culture from University of Passau and M.Sc. in Development Studies - ISCTE. Hanna is involved in the development of community inclusion strategies that help shaping our field operation methodology and is the author of the design and content of HN's social media.



Jorge Gonçalves

Housing NOW's economic consultant and financial strategist. PhD in Economics from TU-Berlin. Provides consultancy and business plans for cooperatives and businesses based in sustainability principles. Jorge has coordinated impact assessment studies on renewable energies and energy efficiency programs in Latin America and the Caribbean and has worked for rural development, farming and microfinance projects in India, Indonesia and Thailand.

Awards and Publications

Conference Papers

- [*Augmenting Computational Design Agency in Emerging Economies*](#)
Computer-Aided Architectural Design Research in Asia (CAADRIA) - 2021
- [*Housing NOW: Investigating real-world unconventional bamboo applications for low-cost housing*](#)
The International Conference on Non-conventional Materials and Technologies (NOCMAT) - 2022

Presentations

- [*MIT Solve: Driving Innovation to Solve World Challenges*](#)
HolonIQ Global Impact Summit, New York - 2022
- [*The potential of bamboo as a material for sustainable construction and circular economic development*](#)
Cop27: INBAR - United Nations Framework Convention on Climate Change, Egypt - 2022

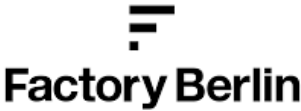
Exhibitions

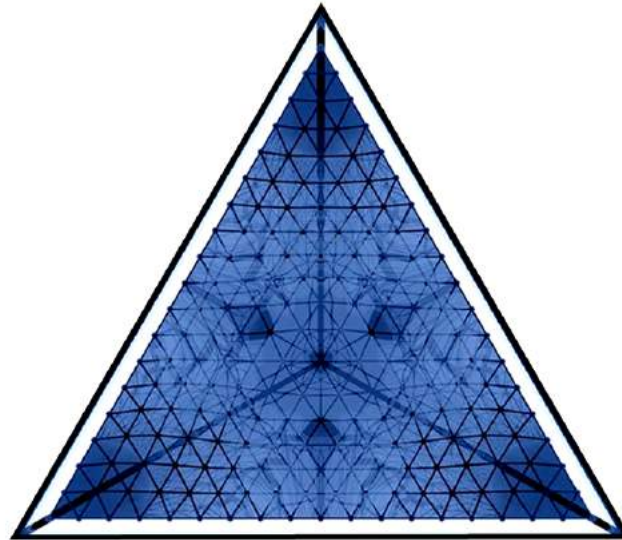
- *European Bamboo Expo*
Dortmund, Germany 2023
- *Low-tech topology optimized bamboo frame for Myanmar*
Design Trust - Soho House HK, Hong Kong, 2020
- *Process*
Institut Français de Birmanie. Yangon, 2022

Awards

- *Changemakers Award*
Factory Berlin - 2023
- *A+ Awards Best X-Small Firm*
Architizer - 2023
- *MIT Solve - Climate: Ecosystems + Housing*
Massachusetts Institute of Technology - 2022
- *Good Energies Grant*
Good Energies Foundation - 2022
- *Bamboo Learnings From Yangon*
Hong-Kong Design Trust Feature Grant - 2020
- *Gyo Byu Pipeline Initiative*
Hong-Kong Design Trust Seed Grant - 2018

Network





BLUE TEMPLE

Housing NOW is an affordable housing initiative by Blue Temple

blue-temple.com