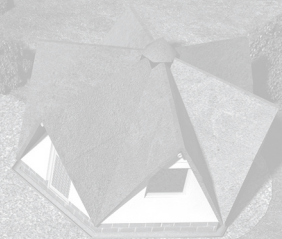
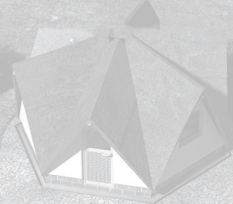
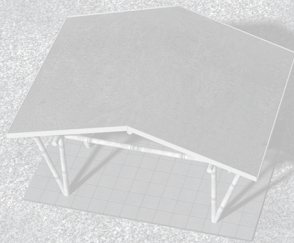




Opportunity for slum improvement



bamboofix.com

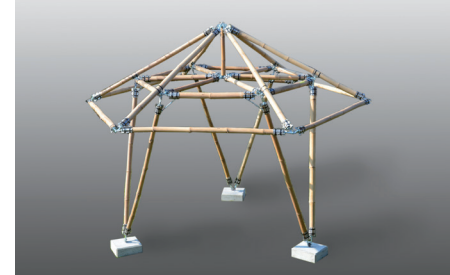
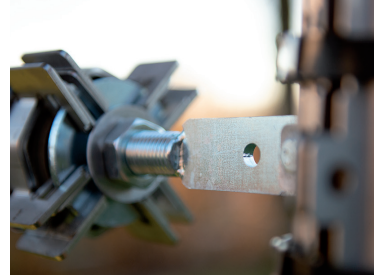
Normalized residential
Bamboo House

Opportunity for slum development

What is BAMBOOFIX?

A new, innovative technology for onsite bamboo constructions.

For building from scratch or improving existing structures to become functional residential houses.



Why BAMBOOFIX?

BAMBOOFIX founders worked for the NGO 'Swiss Expert Corps' worldwide and investigated the difficulty of providing low cost homes.

BAMBOOFIX is the solution for all problems regarding the reconstruction of slums, as well as providing new basic

residential buildings in tropical areas by taking advantage of affordable and sustainable materials.

Why Bamboo?

Bamboo is available in very large quantities (320'000 km² forest, renewable 10-15 times per year - *Wikipedia*).

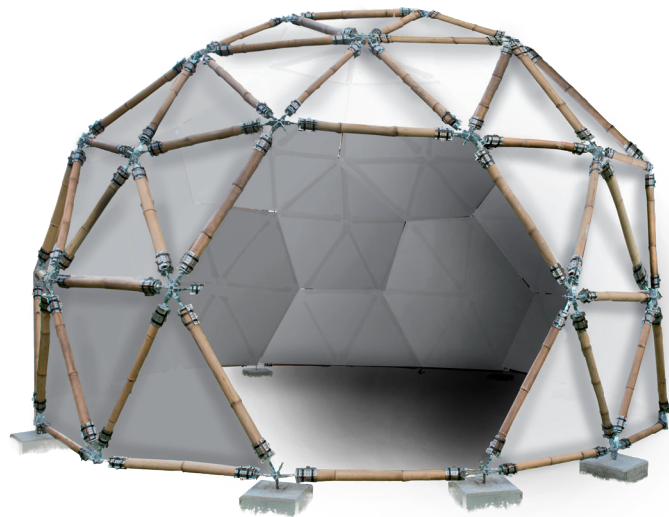
It is not being widely used because, so far, detailed engineering solutions, as well as self-explanatory repair methods, are not readily available.



What is the key innovation of this approach?

Bamboo possesses a variety of advantages, such as suitable thickness, roundness and straightness. The development of this all-purpose material, together with our innovative fitting system, for the first time offers the opportunity for a new type of low-cost bamboo construction.

This method efficiently facilitates new, innovative and stable designs. It deploys an enormous potential for simplifying construction works e.g. by prefabrication of components - or even complex structures - which cannot be achieved with conventional methods (e.g. bolts and nuts).



Why should bamboofix initiate a progressive slum development whereas other approaches have failed?

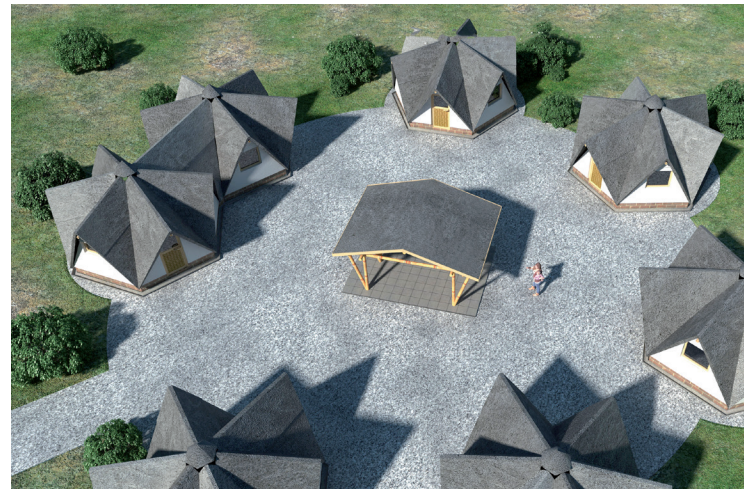
Because standardized houses are made affordable using natural building materials combined with our new, simple fitting system.

With a short construction time of two days, the design is hurricane and earthquake resistant and has a rainproof roof.

Moreover prefabricated components simplify the on-site erection.

Why planned BAMBOOFIX a complete village?

Based on its experience, BAMBOOFIX recognizes that communities are responsible for the social cohesion and well-being of their inhabitants. Consequently, villages require necessary structures to be readily available.



Village-planning principles

- 444 standardized, stairless Bamboo houses.
- Court yards for 40 houses. A shelter for community needs.
- 170 m² for village maintenance facilities, fire brigade.
- 540 m² for roofed school building.
- 340 m² for roofed medical center and meeting hall.
- Administration and first aid.
- Village shop: food for daily needs.
- 40 m² for café with courtyard.
- 150 m² for weekly market.
- Two bus stops.
- 2'714 m² for a park, sport and recreation center.

- 4 x 12m waste and recycling collection center.
- 2 x 30m³ wastewater treatment plant.
- 350 green areas.
- 1500 m² for solar panels.
- Water storage tower.
- 2 x 33 m³ for synthetic CH₄ (Methane gas) storage tanks.
- Electrolysis plant for H₂ production, including battery room and H₂ storage tanks; 2 x 113 m³ for methane production fermentation plant ; transformers for high voltage grid; gas bottle filling station with storage area; service station.
- 950 m³ rainwater collection pond.
- 250 m² rainwater leaching yard.



Opportunity for slum improvement

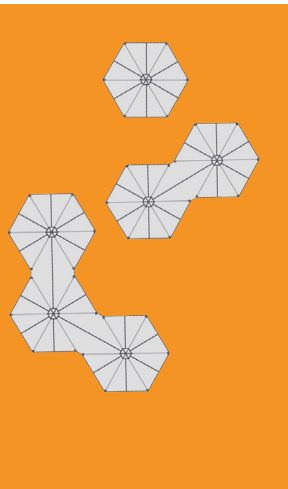
Triangle as a stable non-displaceable basic construction element.



- Use of unprocessed bamboo or young wood rods.
- Biophysical according to SIA (Swiss Engineers and Architects) / DIN (German Industry Norm).
- Appealing, ecological and affordable construction.
- Ergonomic design suitable for families or elderly residents.



Ground plans

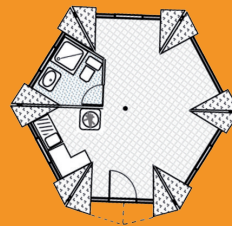


Small family house

Family with children

Large family house

Extension possible
anytime later

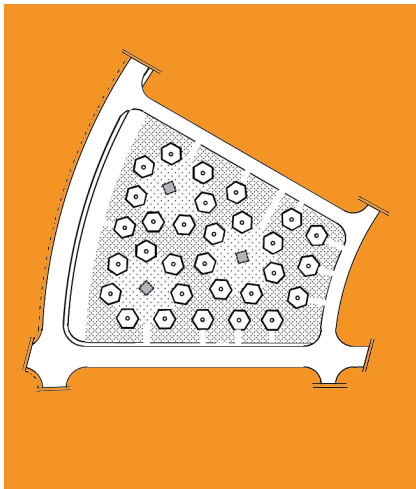


Plan view of small family house

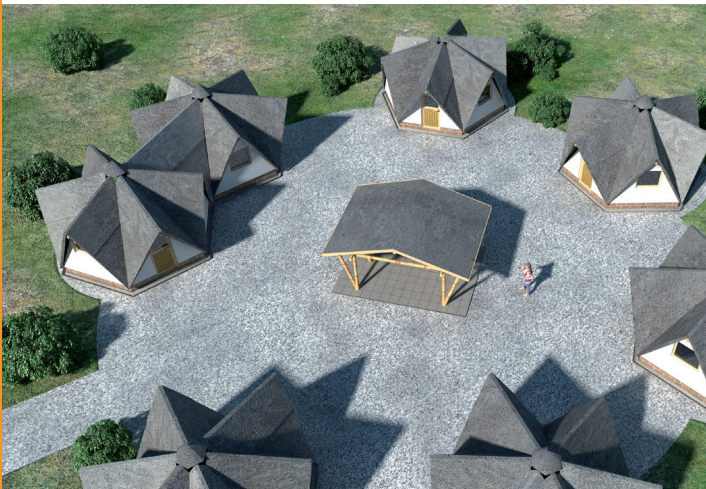
- Floor area 26 m² at 1.5m room height.
- Bathroom with shower, sink and toilet.
- Kitchen with stove, sink and furniture.
- Adjustable ventilation with mosquito net protection.
- Windows in all the walls, smaller ones for kitchen and bathroom.

Plan view of village sector

- 37 of total 444 family houses
- 3 of total 36 family court yards
- 3 of total 36 roof covered court yards
- All family houses are connected to the main street and the ring road, as well as to the bus stop, shop, marketplace and school.



Family residential area



Detail of 444 family village

- Accommodation for seven families.
- One central building for socializing, laundry, children's playing area.
- All houses are connected by court yards and gardens.
- Suitable for disabled and older residents.
- Because there are no door thresholds, particularly suitable for disabled residents.
- Extendable houses for growing families.



What are the next steps?

- A)** Our technical development is completed.
- B)** With this booklet, Bamboofix demonstrates the worldwide potential for stable, low-cost and easy-to-build housing for the poorest on this planet.
- C)** International aid organizations should be motivated to recommend the use and train the users of this new and innovative construction method.
- D)** Get in touch with local authorities worldwide to promote specific projects.

Who is BAMBOOFIX?

BAMBOOFIX is a company of independent, qualified Swiss architects, interior designers, lecturers and engineers who are professionals in wood-construction and interior design.

We have long-standing construction experience in difficult social and geographical environments –

also as volunteer experts for NGO's around the globe. This encouraged the founders of BAMBOOFIX to develop and promote the construction with bamboo - a unique material, grown worldwide, whose massive potential as construction material, has been neglected.



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