The first HuSh shelter goes up in the Dominican Republic in November 2015. The family are surveying their new home which is approximately twice as large as their old one.

The HuSh Shelter

From a single piece, the shelter unfolds to provide 19 square meters of usable living space for up to 5 people, including an internal, central dividing wall and a floor;

Once positioned, it can be deployed and ready for occupation within 10 minutes;

No additional tools or specialist equipment/personnel are required;

Made from sustainable timber it is inherently warm and sound-absorbing. Within its 12/15-year lifespan, it can be redeployed, making it a cost-effective, mid-term solution;

The shelter can be customised with insulation, a stove, phenolic ply (increasing longevity and climatic suitability), opening windows or shutters/mesh. The door and windows are lockable for added security;

The shelter is modular, so multiple units can be joined to create larger buildings such as schools, medical facilities or community rooms. Internal walls can be skinned with bacteria-resistant panels for medical or sanitary use (a 4-unit schoolroom including just such a sanitary washroom is currently in development in Nepal);

The company is in the process of developing a range of shelters starting from £1300. We expect that manufacturing in-country (currently underway in Nepal) will reduce the build cost and eliminate freight charges;

The shelters weigh between 750 and 1200kg and are positioned by crane or forklift. Its weight gives it unrivalled stability.

Research

The picture above shows our deployment in the Dominican Republic in November 2015, where temperatures are constantly above 30 degrees. We took temperature and humidity readings over a two-day period, comparing insulated and non-insulated units:

Our deployment proved the following concepts and procedures:
- Fold-flat, rapid deployment (under 10 minutes);
- No tools, no training;
- Logistical procedure;

Our feedback established that recipients liked:
- Its strength
- The distribution of space
- The floor
- The central, dividing wall
- Its quality

Modifications adopted as a result of feedback:
- Rubber webbing along the joins;
- Opening windows or shutters with mesh for hot climates

Winterization Research for Nepal

- We have commissioned independent computer modelling to assist with snow-loading and wind-force calculations
- We have evaluated two insulation options:
  - Double-foil laminate (air bridge insulation)
  - Glass fibre (void insulation)

Our aim as a company is to license our CAD drawings to in-country manufacturers so that local materials and labour can be used and the need to ship from the UK is eliminated, thus minimising our carbon footprint and stimulating local economies.

We already have a licence-holder in Nepal and are in negotiation with manufacturers in India and in Chile. Discussions are also underway in Romania.