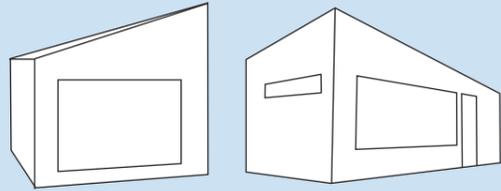
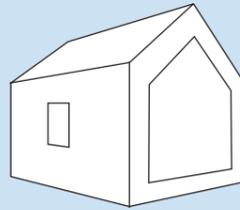


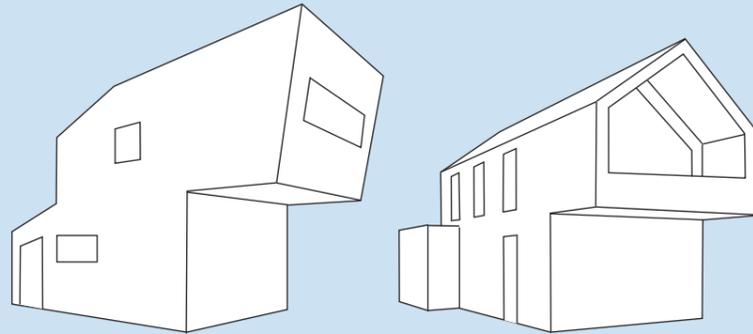
Infinitely varied possibilities



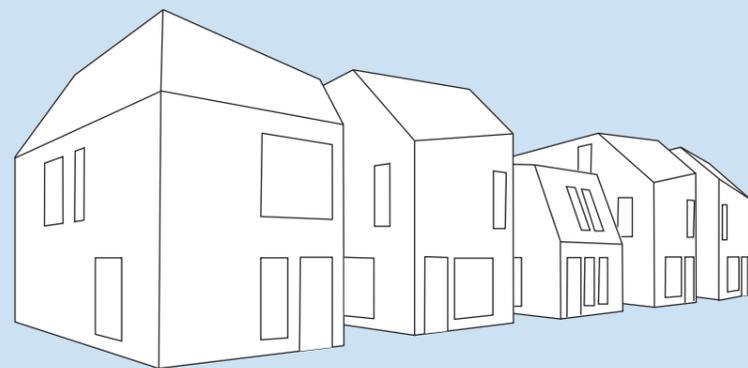
Kiosks



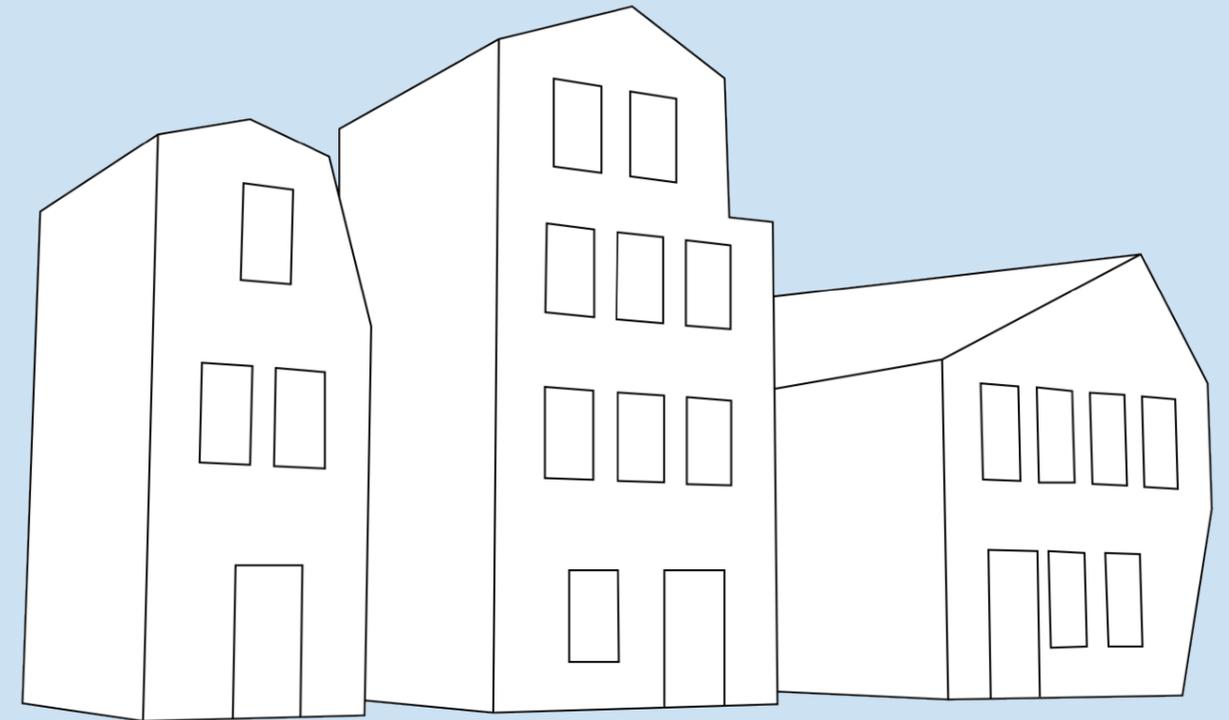
Garden rooms



Holiday cabins



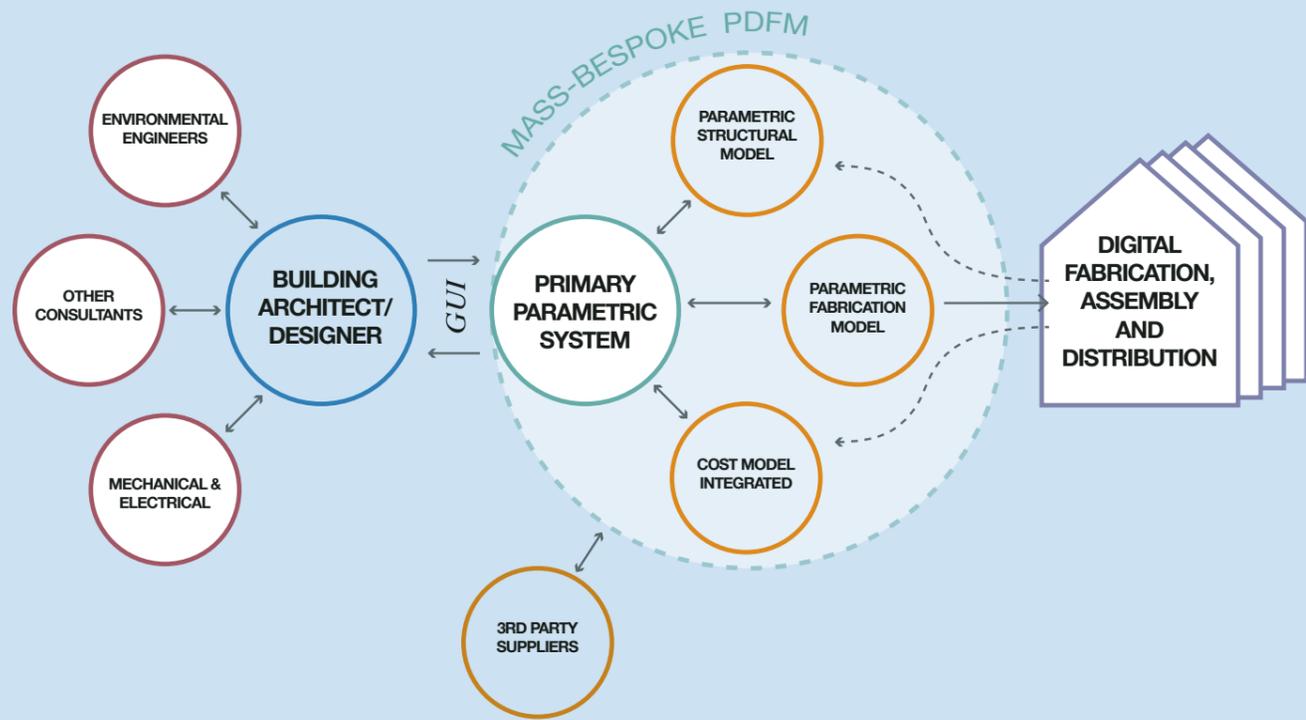
Bespoke housing



MassBespoke™

MassBespoke represents a new possibility for exploiting CAD/CAM through distributed manufacture in the advent of ubiquitous digital environments. The award winning research behind MassBespoke combines repeatability and accuracy of CAM with wide availability of small scale CNC manufacturers in order to establish an efficient and sustainable supply chain that is resilient to changes in market demand and need for customisation that epitomises the construction industry. This distributed approach provides fertile ground for diversity and innovation but is restricted by the cost of necessary testing and accrediting new products before they can be taken to market. There is a need for testing all aspects of new construction products quickly and cost effectively to support widespread innovation in this sector.

System Overview



An integrated system

- MassBespoke™ automatically outputs:
- Performance, cost & quantity information up-front;
 - 4D data ready for BIM co-ordination;
 - CAM data ready for manufacturing;
 - Automated reports for building regulation approvals.

Commercial potential

- MassBespoke™ satisfies two Government drivers:
- a need for increased self-build;
 - a need for smart construction/digital design by 2025.
- MassBespoke™ will expedite builds, as other components (such as windows) can be ordered at the same as the MassBespoke™' construction system.

A range of capabilities

- MassBespoke™ can achieve a variety of flexible solutions, depending on the application:
- Up to 4 storey structures;
 - Any CNC millable sheet material;
 - Infinitely variable geometric possibilities

MassBespoke™ going forward

Bauman Lyons are planning to apply for SMART R&D grant to build a prototype in 2016 on the Citu owned site in Leeds. We are keen to grow culture of innovation within the construction industry in the North of England as recent statistics show we are lagging significantly behind the south in this respect.

Prototyping



Geometries Generated

Any given faceted form generated in BIM or other 3D software, such as SketchUp



Geometries Analysed

Digital design phase using Grasshopper plug-in for Rhino



Automated Engineering Design

Engineering design is processed automatically, including building regulations reports



Fabrication Model Generated

Assembly

Parts are fabricated and assembled into panels in a factory environment

Construction

Panels are erected on site