Open modular systems

'It's like designing an endless puzzle', says designer Thomas Lommée of his modular construction system OpenStructures.

Created in collaboration with Belgian gallery Z33, OpenStructures is an open modular construction system that its creators liken to 'collaborative Meccano', where users can design their own parts to fit a grid system.

Consumers can easily create parts, or take parts from other designs, to form new products. These 'open products' evolve as others refine them or hack them to produce new products.

'What is interesting about modular systems is that they allow for flexible construction,' says Lommée. 'They allow an object to evolve – it adds the dimension of time. You can update an object, you can make it grow by adding parts, you can make it shrink by taking parts away, or you can adapt it to your own needs by replacing parts.'

Diversity within modularity

What distinguishes OpenStructures from other modular systems is its open-source nature. This enables users to express themselves by designing their own parts. 'By letting different people design different parts, you create a kind of diversity within modularity,' says Lommée. 'We're used to seeing modular systems as very uniform – in this proposal you get different signatures from different people within a common system. It becomes a construction game within society.'

Lommée also hopes to change how we see objects. 'I think within a modular system we don't judge an object simply for what it is,' he says. 'We don't just buy it, consume it, throw it away – we also think about what it can become. We see an object now as a lamp, but maybe we think: 'Okay, from this object I'll take some parts away and I'll reuse them or I'll build something different with it'. And I think that's a more engaging, and a more participatory, relationship with the object.'

Our top five take-outs

1 : Create a platform. Rather than designing products, design an infrastructure that users can customise to their needs.

2 : Be open-source. Let users collaborate and customise your products and services.

3 : Be modular. Consider how your product can be customised according to a modular infrastucture.

4 : Be future-focused. Consider not just what your products are now, but what they could become in future with refinements, hacks and improvements.

5 : Gamify design. A modular design system creates a social environment in which consumers compete to improve on each other's designs. 'You can exchange parts, you can take parts off somebody else, build further on it, improve it, and then get in contact with this first person,' says Lommée.