

**Title** : *Design and Development of 3D Printed Textile Structures*

**Event** : *New Designer Exhibition,*

**Location** : *New Designers Upper Street Events 58 White Lion Street London N1 9PP ,*

**Team** : *Emma Grain & Ertu Unver,*

**Date** : *05 - 08 July 2017*

3D printing is shaping new business models and is leading the way in rapid prototyping. From Product Design and Engineering and most recently into Fashion and Textiles. This manufacturing revolution poses challenges for conventional business models for example, items to be produced locally, leading to shifts in existing supply chains and global logistics. Advancements in Additive Manufacturing in textiles recently enabled designers to produce 3D printed garments directly from raw material, such as polymer, in a single manufacturing operation. This technology not only has the potential to reduce waste, labour costs and CO2e, but can modernise clothing production by encouraging localised manufacturing and production.

In this research all existing 3D Printed Structures have been identified, compared and analysed in both their physical design, textile like properties and uses. Comparing the structures to each other and the existing traditional textile structures allows this research team to identify areas for improvement and development and potential uses for each type of structure and manufacturing method. This information will inform new 3D printed textile design going forward and can be built on as the technology develops further. A number of 3D structures designed and developed as new textile structures using 3D printing at the University incorporating recycled materials from post-consumer waste polyester.

**New Designers:**

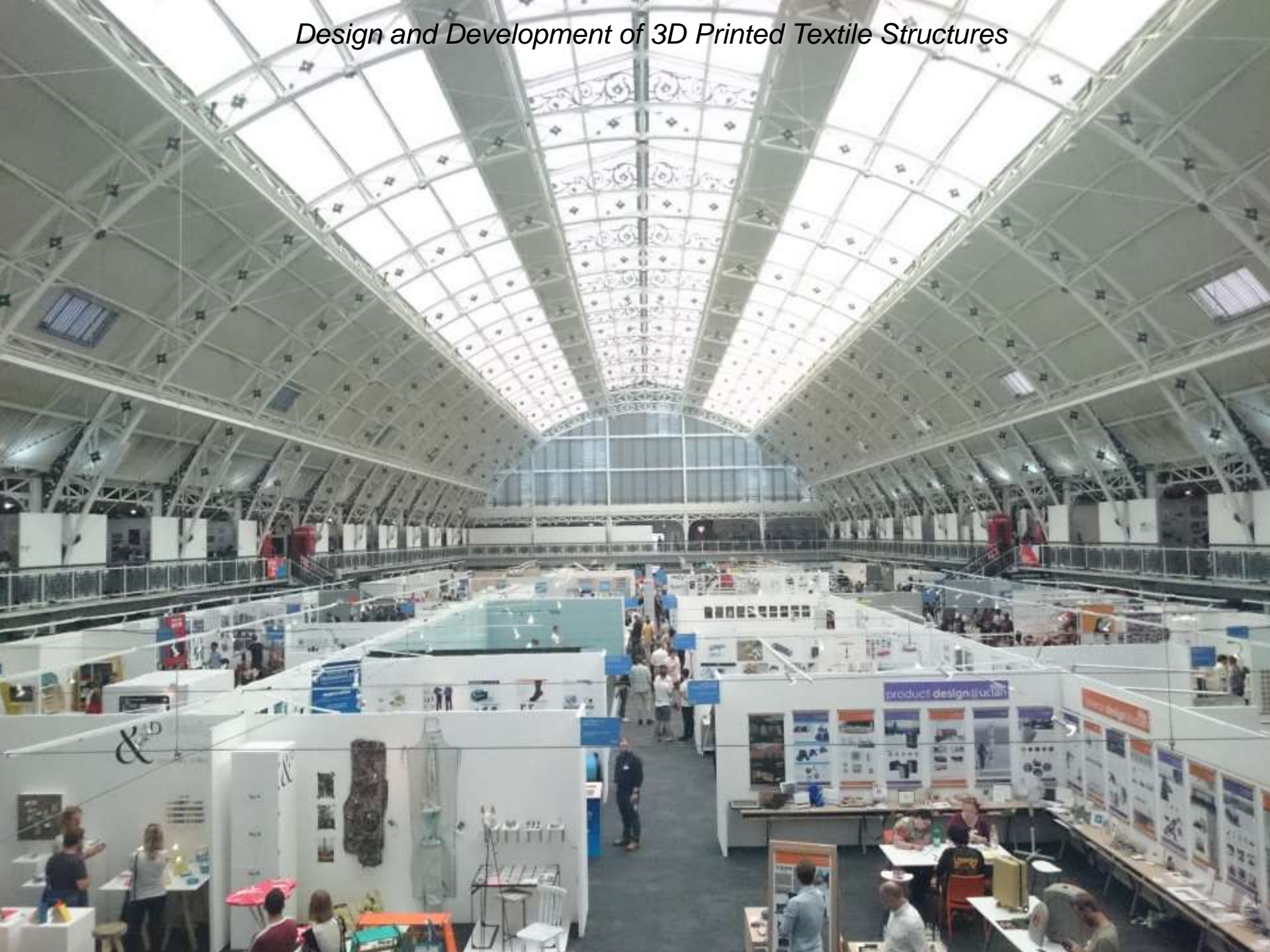
New Designers is one of the important design event in the UK ensuring the life cycle of the design industry continues and thrives. It is entering its 33rd edition, the New Designers exhibition brings together design education, design consumers and the design industry to celebrate and recognise and the next generation of graduate designers. New Designers gives new graduates the opportunity to exhibit their new products, get inspired by fresh ideas and discover new design talent to commission or recruit. It also provokes fresh thinking and kick-starts careers, providing a pipeline of young talent into one of the UK's leading sectors. It has two sessions, covering different design disciplines:

Part 1: Textiles & Fashion – Costume Design – Jewellery & Precious Metalwork – Ceramics & Glass – Contemporary Design Crafts,

Part 2: Furniture, Product & Industrial Design – Spatial Design & Interiors – Graphic Design – Illustration & Animation – Motion & Digital Arts

Each edition brings 3,000 graduate talents from the UK's leading design courses exhibit. The show features illustration to animation, furniture to fashion, and gaming to glass and takes place at the Business Design Centre in London.

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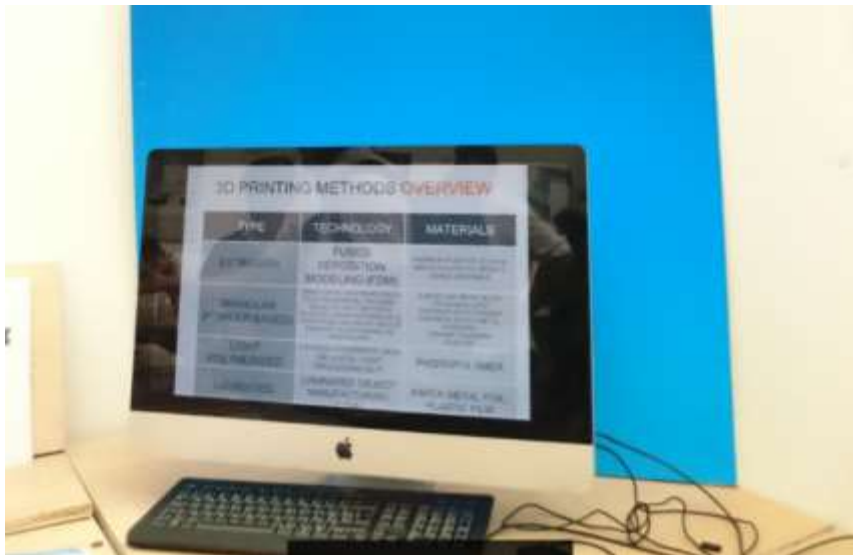
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