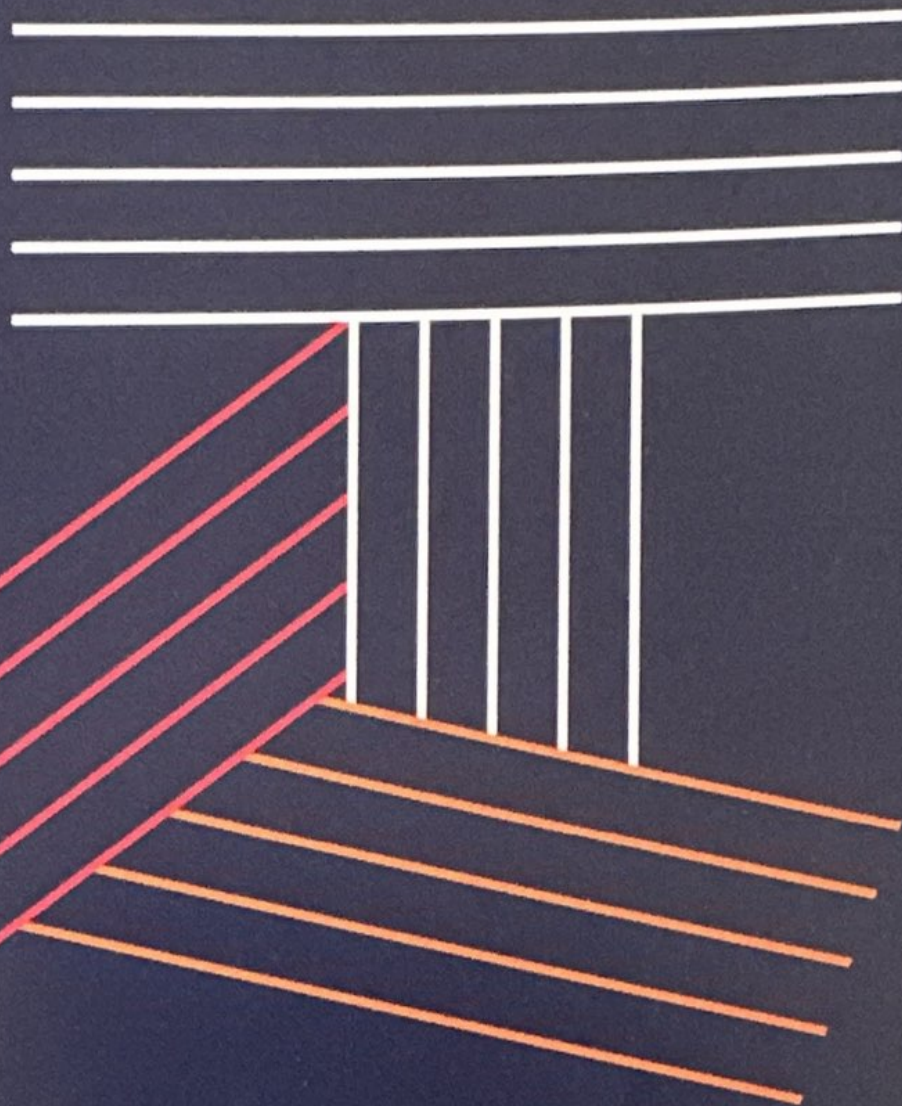


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TEXTILE INTERSECTIONS EXHIBITION

Collaborations in Textile Design Research
London 20-23 September 2023

Animate Materials: Exploring Nature-Inspired Dynamic Color Adaptation

Interactive and Performative Textiles

Through evolution, nature became a master of colour manipulation by creating unique structures that can interact with light purposely. Inspired by the footsteps of nature and through our technical ability in textile processing; we embarked on a collaboration between the two Universities and formed an interdisciplinary team of scientist, artist, and designers to transform the colouration of textiles. Textiles reveal and contextualize the most intimate relationship between material and humanity. The process of combining cutting-edge technological advancements and traditional textile making strikes a balance in the preservation of nature and the breakthrough in progressing human society. In this exhibition, we are showcasing not only the use of micromachining, self-assembly and surface engineering concepts to build colour in textiles (without any colourants), we will also offer functionality inspired by nature that will give the textiles the ability to respond to their environment. Inspired by the principle of colour-changing butterfly wings, we explored 3D printing hydroxypropyl cellulose (HPC) into pieces with pinholes of varying sizes and thicknesses. We experimented with different arrangements and connected them together with threads, simultaneously referencing the large-scale installation "Unwoven Light" by artist So Sunny Park. The sensory interaction is revealed on the textile surface, visualized by the thermochromic quality of the liquid crystals, extending the microstructure of colour into the macro level. Hence, the visuality of our project communicates the reciprocal relationship between art and science as an entity to a larger audience. In this exhibition, we will feature a textile-based installation demonstrating the techniques to textile led interventions for structural colour and a display documenting our colour-material archive.

Ahu Gumrah Dumanli-Parry bp-ICAM Kathleen Lonsdale Reserach Fellow, Lecturer University of Manchester, Department of Materials, **Elif Ozden Yenigun**, Senior Tutor, Royal College of Art, School of Design, Textiles, **Hongning Ren**, PhD student, University of Manchester **Xiao Tan** and, **Han Zang**, Master students, Royal Colloeege of Art.

