Myco Colour

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Hosted by: Liene Kazaka

Project Information (EN)

WHY

It is no secret that the textile industry is among one of the most polluting industries in the world. Furthermore, textile finishing methods – including colouring – are estimated to be responsible for one fifth of industrial water pollution (Ravasio, P. (2012)). According to Ellen MacArthur foundation report A New Textiles Economy: Redesigning Fashion’s Future (2017): “Some frequently used dyeing methods apply dyes in excess quantities, with large amounts being discharged into wastewater. Some dyes, including amine-containing azo dyes, are persistent, which is a desired property in fabric but not in the environment. Dyes also sometimes contain heavy metals such as lead or cadmium. Under certain conditions, some dyes break down into carcinogenic compounds and others can cause allergic reactions […] Current processing methods are also resource hungry and highly inefficient.”

HOW

But what if there is a way to achieve colour by nurturing nature instead of destroying it? The project started with a brightly coloured blue-green piece of wood found on a forest floor. The bit of wood had been coloured by a mushroom called Blue elf cup that is surprisingly common in UK forests and its use in woodwork goes back for centuries. This fungus can release a turquoise pigment into the object it is growing on- a property that holds a promise to completely eliminate the use of all chemicals in the textile dyeing process. When growing colouring fungi directly on materials, only two components are needed: simple nutrients as a food source and fungi. Blue-green pigment produced by the mushroom has shown equal colour fastness measurements to commercial dyes allowing us to imagine a future where fabric is coloured solely by living organisms.

FUTURE

Future textile printing will rely on growing multiple organisms/colours and applying them on materials in life-friendly conditions. This will enable designers to create half-controlled designs, where the human selects the starting point of growth and food source, but the mushroom creates the rest of the pattern. This method has the potential to revolutionise not only industrial material finishing methods but also the cultural perception of colour, and could renew our connection with and appreciation of nature.

Projectinformatie (NL)

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Image List

Filename	Caption	Credit
dsc04719-2smallextra_1633638764.jpg		Maël Henaff
vhx-000138asmall_1633638884.jpg		Liene Kazaka
dsc04555-2small_1633638902.jpg		Maël Henaff

The images above are included in the ZIP under `/images`.