Alchemical Mycology

Extracting pigments from fungi as renewable alternatives to traditional colourants.
Alchemy Mycology

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Project Information (EN)

Sources of Colour

Colour is a vital feature of life and as such, humans have been on a quest to harness the boldest and brightest colours for thousands of years, originally creating pigments from natural materials (such as clay and ash) until the discovery of synthetic colourants in the mid-19th century redefined our relationship with colour. The advent of synthetic colourants triggered a new wave of colourful possibilities, with hues and performance characteristics well-beyond that of colourants from plants, animals, and minerals. However, synthetic colourants are made from fossil fuels (a non-renewable resource) and some have been found to have harmful effects on both humans (as carcinogens) and the planet (as pollutants). Growing awareness of these issues has increased the global demand for alternative renewable sources of colour in food, cosmetic and textile sectors.

Fungal Colour

Fungi are an underexplored source of sustainable colourants that are non-toxic, biodegradable, light-fast, and some even have cosmeceutical benefits, such as anti-oxidant and UV protection. Mycology (the study of fungi) is a relatively new field and it is estimated that we've only discovered about 1% of the fungi on Earth, yet within that 1% there's a wealth of research into the potential applications and industrial importance of pigments extracted from fungi.

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Drawing on my background in chemistry and biomolecular science, I've become a mycological alchemist, extracting pigments from fungi and exploring how they can function as abundant renewable sources of colour with the potential to reduce or replace our dependence on non-renewable colourants (e.g. synthetic or mineral). To illustrate the viability of fungal pigments, I created a makeup collection using the pigments I extracted from mushrooms, lichens, yeast and mould. By collaborating with fungi I am challenging our relationship with colour as it intersects beauty, health, and the environment, while valorising fungi and their chemical extracts.

Image List

Filename	Caption	Credit
ddw-alchemy-mycology_1665487461.jpg	Lipsticks made with pigments extracted from fungi	Tom Manion
1-alchemical-mycology_1665573553.jpg	Alchemical Mycology (in the lab)	Tom Manion
jesse-adler-img4_1665573689.JPG	Full cosmetic collection from fungal pigments	Ben Turner
jesse-adler-img5_1665573973.jpg	Lipsticks made with pigments extract from fungi	

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