Edinburgh Science Festival – how to make your clothes from mushrooms

One of the Festival's key exhibitions is Growing Home at the National Museum, looking at a variety of materials and in particular how biomaterials like mushrooms can be used in fashion or engineering.

As part of this exhibition *Symbio* is a collection of biomaterial themed garments inspired by fungus structures. Many of the most exciting and talked-about biomaterials being developed today are made from mushrooms, and the designer has used this as the inspiration for these garments.

This exhibition explores the properties of a range of biomaterials using a variety of construction methods. Bracket fungus-like elements are attached using appliqué, an ornamental needlework technique. The elaborate cape structure is created using laser cutting.

Emily Raemakers is an Edinburgh-based artist who specialises in hand printed fabrics and garment design. Having studied Performance Costume Design at Edinburgh College of Art she went on to work freelance as a designer in film and theatre.

Pictured: Emily Raemaekers models the dress which she has made using mycelium materials and leather from vegetable processing waste. Mushroom-made clothes? at

Edinburgh Science Festival PHOTOS Ian Georgeson

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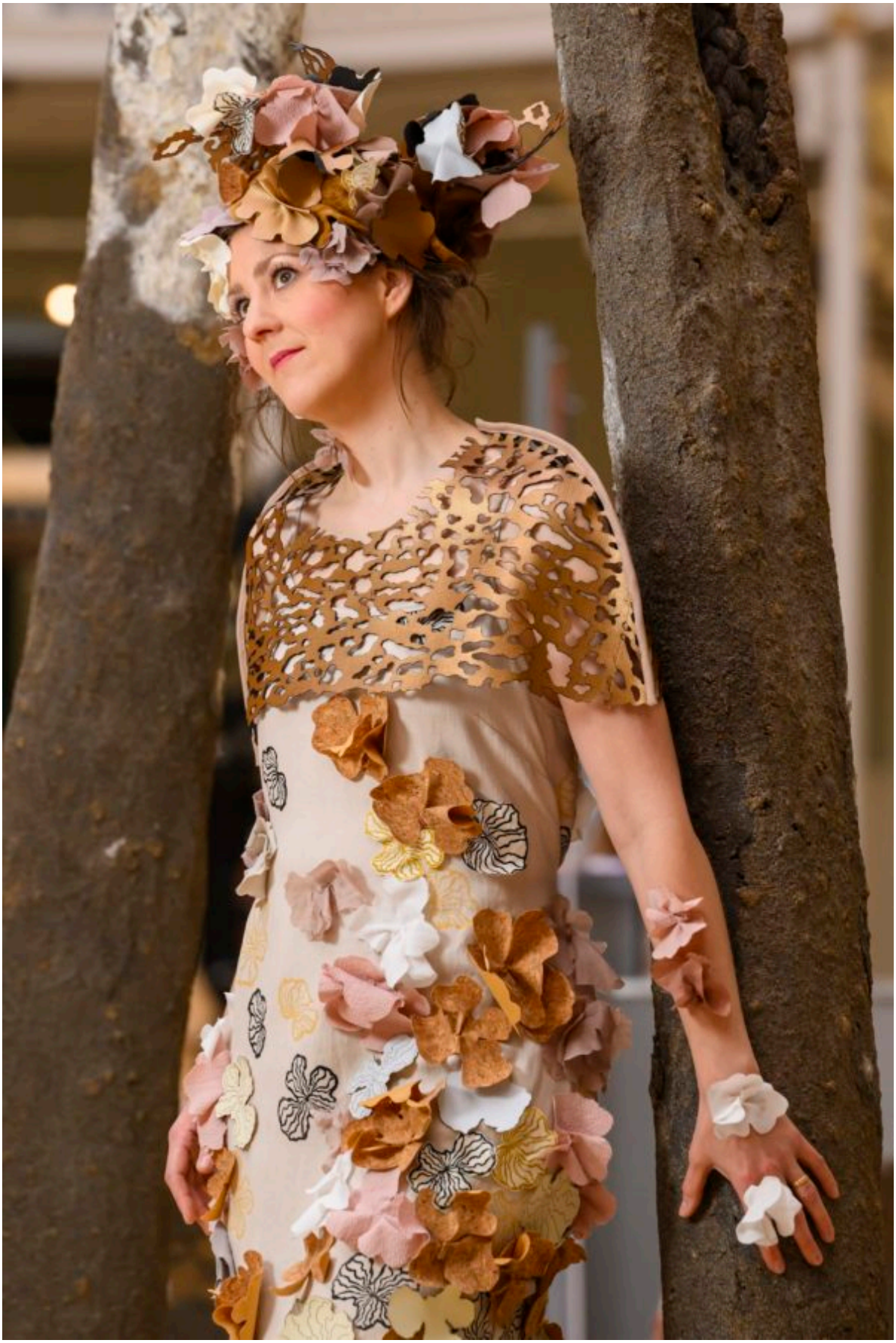

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She ran a textile printing and fashion accessory business for

10 years in Scotland and Australia, and dabbled in upholstery, before moving back to her hometown of Edinburgh where she is now a events planner, blending creativity and the arts with science.

The base dress is dyed with dried hibiscus flowers, a biomaterial dye that produces a rich palette of pinks and reds. Industrial textile dyes contain many harmful chemicals derived from fossil fuels, and **textile dyeing is the second largest polluter of water globally**. Many designers are now exploring natural dyes derived from plants, invertebrates, and minerals traditionally used by many cultures around the world. Although it is more difficult to produce consistent tones from natural dyes, this variation can be embraced as an aesthetic choice as part of the Slow Fashion movement.

The dress is decorated with mycelium patterns using linocut, a printmaking technique where linoleum is carved into to create a relief surface. The designer has printed these using water-based textile inks which are more sustainable than commonly used plastic-based alternatives.

Edinburgh Science Festival is on now and provides wide and diverse audiences with amazing science-themed experiences through a diverse programme of innovative events for adults and families. Alongside the annual Festival in Edinburgh, the organisation has a strong focus on education, running a touring programme, Generation Science, that brings science to life for primary schools around Scotland throughout the year, and running an annual Careers Hive event which promotes STEM careers to young people.

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