



Restorying Riverscapes: Investigating the social and environmental impacts of the textile industry on rivers past and present

Wednesday 9th November 2022

The fashion industry is dominated by synthetic fibres and chemical dyes, releasing volatile substances into waterways that can pose a threat to human health and damage complex ecosystems. In response to growing concerns around fashion's impacts on rivers through chemical and microfibre pollution, [Fashion Revolution](#) has launched a [new report](#) detailing research conducted on the social and environmental impacts of the textile industry on the riverscape of the Churnet at Leek, Staffordshire.

The [Restorying Riverscapes](#) project took place during Spring and Summer 2022, bringing together Fashion Revolution and researchers from Keele University and Loughborough University alongside local community groups. Its aim was to examine historical changes in the River Churnet at Leek, Staffordshire linked to textile production in the area during the industrial revolution. The project addresses the lived experience of community building, involving people in innovative activities that explore local history and the impacts of industrial heritage on their environment, developing a more inclusive account of environmental history.

Together with citizen scientists, the researchers reinterpreted historic Leek in parallel with the experiences of other textile-boom regions, such as Bangladesh, where migrants have settled and helped shape the culture and where rivers are filled with wastewater carrying dyes, fibres and mordants that accumulate in their sediments. Through this research, novel connections have been made between the resilience and recovery of the rivers and lakes and the resilience of the local community in the face of deindustrialisation.

Key findings

- Evidence of textile microfibres were found in the River Churnet and Rudyard lake. The sources of these fibres may include laundry and tumble drier effluent, sewage overflows, sewage treatment, and the use of wastewater-derived biosolids as fertiliser on agricultural fields.
- The most common fibre type found in the microfibre analysis from lake sediments and river water samples was cotton, with evidence suggesting an increase in synthetic fibres over time.
- There is historic evidence of pollution linked to dyeworks and textile mills impacting residents and workers throughout the 19th century.
- Research suggests that Huguenot migrants, Jewish refugees and displaced workers from other British industrial areas were involved in Leek's textile boom.
- Archives were studied that suggested women were both empowered and exploited by the textile industry which largely relied on a feminised workforce.

- There is an urgent need for tougher legislation that mandates transparency and environmental due diligence in order to push fashion brands and retailers to measure, disclose and address their environmental impacts.

"In order to understand the long-term impacts that textile fibres will have on rivers, lakes and the wider environment, we need to look to the past, using the mud from the bottom of lakes as a time machine to understand how the types and quantities of textiles fibres have changed over time. By doing this, we can gain an insight of the future challenges and impacts presented by textile fibres in our environment today".

Dr Antonia Law, Senior Lecturer in Geography, Keele University

"What I found most revealing was just how long it could take the river to recover from its industrial heyday, with reservoirs, dredging, agricultural practices and low water all continuing to affect the river's ecology. The health of rivers and river communities is fragile; it's been a real privilege to celebrate the history of the River Churnet and the silk industry at Leek, but also the lasting after-effects of the textile boom. It's quite likely not much has changed in contemporary textile production in other parts of the world."

Professor Deirdre McKay, Professor of Sustainable Development, Keele University

The Restoring Riverscapes report is [now available online](#) and will be launched in print at a [public event](#) on Thursday 10th November, featuring presentations from the researchers and opportunity for Q&A.

The poster features a teal background with white text boxes. In the top left, there are logos for Fashion Revolution and Keele University. The main title 'RESTORING RIVERSCAPES' is in large blue letters. Below it, a subtitle reads 'Investigating the social and environmental impact of the textiles industry on the River Churnet'. The event details are listed in a white box: 'THURSDAY 10TH NOVEMBER 4:00-5:30 PM' at 'The Maude Institute, Clerk Bank, Leek, Staffordshire, ST13 5HB'. A separate white box contains an invitation: 'You are invited to an afternoon of networking, refreshments and presentations to explore the findings of the Restoring Riverscapes project, including input from the local community.'

FASHION REVOLUTION

Keele UNIVERSITY

RESTORING RIVERSCAPES

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For more information, visit www.fashionrevolution.org/restoring-riverscapes

Contact press@fashionrevolution.org for interview requests

Download images for press [here](#)

Notes to Editors

About Fashion Revolution

[Fashion Revolution](#) is a global movement campaigning for a fashion industry that conserves and restores the environment and values people over growth and profit. Since 2014 the organisation has been working in over 90 countries worldwide across research, education and advocacy with the aim to increase transparency in the fashion industry and stand in solidarity with the people who make our clothes. Fashion Revolution has grown to be the world's largest fashion activism movement, mobilising citizens, brands and policymakers to make positive change.

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