

A Work in Progress:

How Leeds Museums and Galleries are supporting
sustainability and biodiversity (2019-2020)



As we look beyond Coronavirus, the twin threats of climate change and manmade loss of biodiversity remain some of the greatest challenges facing the world.

At Leeds Museums and Galleries, we recognise how important it is to play our own part in making a difference.

Over the last few years we have been stepping up environmental action, globally and locally, across our programming, exhibitions and operations. We are using our natural science collections to support international biodiversity conservation efforts; exploring climate change and environmental issues through our collections and community engagement programmes; developing specifications for reusable crates; and a service-wide drive to improve energy efficiency at our venues, including installing a biomass boiler and LED lighting at Leeds Industrial Museum and solar panels at the Leeds Discovery Centre.

We would like to share some of the highlights from 2019/20.



A Spotlight on Environmental Sustainability

We have been proud to be able to take part in the Arts Council England Spotlight Programme 2018-2022, working with Julie's Bicycle and other Tier 3 NPOs to share environmental good practice and reduce our carbon footprints.

As part of our commitment to the programme, by 2021/22, we aim to achieve the following ambitious targets to reduce our consumption of electricity and gas and improve our energy efficiency:

- An 8.2% relative reduction from 2018/19 levels in the carbon we produce – that's 33.4 kg CO₂e per m²
- A 5.9% reduction from 2018/19 levels in our relative energy intensity – that's 118 kWh per m²
- Achieving this target, will mean that our carbon footprint by 2021/22 will be 938 tonnes CO₂e – that's 84 tonnes lower than in 2018/19.



Bouquets for our Beavers and Weavers

An environmentally-friendly exhibition at Leeds City Museum won a prestigious national award in 2019 for the way we used sustainable materials to explore the wonders of the natural world.

Beavers to Weavers: The Wonderful World of Animal Makers won the award for environmental sustainability at the 2019 Museums Change Lives awards.

Over 48,000 people visited the exhibition at Leeds City Museum in 2018, to see the exhibition, which celebrated the beautiful things made by animals, with examples from different species all across the world.

From the outset we knew that we wanted to deliver this exhibition differently to our previous projects. We put sustainability at the heart of everything we did. We used hand-made paper, reused materials and recycled paint, to put the exhibition together. They also ran a series of workshops and events, which encouraged visitors to think about how we can each reduce the impact we have on the planet.

Organised by the Museums Association, the MCL Awards aim to champion the work of individuals and institutions around the UK working with and for their communities.



Supporting international efforts to protect the Tasmanian Devil

Wild populations of the Tasmanian Devil are being ravaged by Devil Facial Tumour Disease (DFTD) – an aggressive transmissible cancer. Leeds Museums and Galleries have been part of an international effort to find a cure.

We have three Tasmanian Devils (*Sarcophilus harrisii*) in our natural science collections. Their DNA has been taken and looked at by a team in Australia who are researching the disease in the hope of finding a cure for the condition.

Leeds collected specimens from around the world during the 19th century, and even had a 'purveyor of Australian wildlife' through whom we acquired two devil mounts and a skeleton.

The study, which also used specimens from Oxford, looked at genetic diversity in a group of molecules in cell membrane proteins, called the 'major histocompatibility complex'. Low diversity in this complex has been linked to the emergence and spread of DFTD. The team needed samples of historical and ancient Tasmanian Devil DNA to see how diverse the populations were before and after European settlement.

This has been a great example of how museums can support international efforts to conserve biodiversity.



Gardening with colours to brighten mental health

Since June 2016, we have been running a volunteer gardening project at Leeds Industrial Museum, in collaboration with Hyde Park Source, an environmental charity in Leeds. As part of the Outdoors Active and Well project, an initiative to establish community gardening and wellness groups, the garden at the museum engaged a range of volunteers who meet regularly. Every Thursday since then, they have participated in working with two large green spaces in the grounds of the museum.

The project, known as the Colour Garden was initially designed to display the plants used to dye the woollen cloth produced in the mill, but has since expanded beyond this, to a thriving, colourful space, where volunteer gardeners have taken ownership of the planting and the design layout of the green spaces. The multiple gardening experiences in the group have generated health and wellbeing benefits. These include the formation of social relationships generated in and by the gardening group over time. The longitudinal nature of this project has helped facilitate peer to peer mental health support at a pace set by the members of the group and on their own terms. In addition to this, the gardens have improved the museum site for visitors, and increased the wildlife and species diversity in the area.

The Colour Garden won a silver award in the 2019 Leeds in Bloom Awards in the Business and Communities section.



Coding, conservation and collections – micro:bit workshops to support sustainability

Together with Leeds Libraries, we have been running a series of workshops for young people using our natural science collections and developing coding skills, as part of the Do Your :Bit global challenge from the BBC, encouraging young people to learn coding while supporting the UN Global Goals for Sustainable Development.

The seven workshops included hands-on sessions with our collections at Leeds City Museum, followed by sessions on coding skills at Central Library. These sessions were themed to allow exploration of camouflage, warning colouration, Batesian Mimicry, bioluminescence, sonar, echolocation and electrolocation, and then developing coding skills to approximate these traits using the micro:bits.

Six projects from the workshops were submitted to the competition, ranging from a warning system for numbats (an endangered species of Australian marsupial) to an ‘information tree’ and a talking bin.

We were impressed by how deeply engaged the young people were in protecting the natural world, and the challenge has been a great opportunity for them to learn and develop coding skills, and apply them to solve real life problems.



How clothes of yesteryear can teach us about more sustainable fashion

Our exhibition Fast x Slow Fashion opened at Leeds City Museum in February 2020. Spanning 300 years, this exhibition explored how shopping in Leeds has transformed in both its scale and the way it’s consumed. It shows how the ‘slow’ fashion of the past became ‘fast’ in a world of mass production, changing trends and lower prices.

We have been keen to take a look at how handmade, recycled and pre-loved fashion has made a resurgence in an age of climate change action. This beautiful dress is a great example of how well this was understood in the past. Originally made in 1770, it was cleverly updated over time to eventually follow the style of the 1830s.



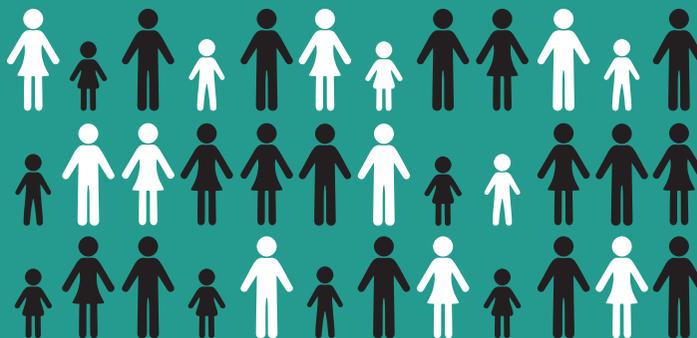
Our insects are dead inspiring!

We received nearly £120,000 in 2019 from the Museums Association’s Esmée Fairbairn Collections Fund for our Dead Inspiring project. The project will use our fabulous entomology collection to inspire young women in Leeds to follow a scientific path and feel more excited about choosing science at A-level and beyond.

The Dead Inspiring project is a three year endeavour to promote a women-in-science agenda, supported by the Esmée Fairburn Foundation. We will use the Leeds Museums and Galleries entomology collection to engage young women and girls in science, and encourage them to take the topic further in their education and general studies/interests. We will achieve this through school workshops, science event days and also by bringing in students as co-curators to assist in accessioning the existing collection and then giving them opportunities to engage with groups and talk about what they’re doing.

Our museums are popular

In 2019/20, our museums were visited by
1,324,244 PEOPLE



Museum visits contribute millions to the local economy



In 2019/20, our museums contributed **£23,991,219** to the local economy.

Thanks to our use of local services, our museums also supported **90 external jobs** in the region, worth **£2.9M**.

Our museums support our schools through inspiring work with young people



In 2019/20, we were visited by **49,069 pupils** supported by **6279 teachers**.

137,903 children and adults participated in family activities at our venues and in our communities.

We provided training for **2033 teachers**.

We have a great staff team



We employ **179 staff** (FTE), researching, preserving and celebrating our collections, providing great experiences for visitors and working with all our communities.

Our shops and commercial services are proving ever more popular with customers



Our **7 shops** and **3 cafes** generated an income of **£1,003,974** in 2019/20.

Fees from room hire at our 7 venues brought in **£188,661**.

We also offer filming, canal moorings and more.

Our museums contribute to community health and wellbeing



Our **330 volunteers** contributed **10,709 hours**, worth **£187,707**

37,882 people took part in our programme of community activities.

Our museums are working actively with virtual visitors and audiences



Our websites attracted **1,135,788** page views and we have over **276,220 followers** on social media.

Our museums cost relatively little to run



£8,618,228 gross budget, including income and grants.

£5,174,235 net budget.

Our museums bring in significant external funding



Attracting **£9,420,415** between 2015/16 and 2019/20 (averaging **£1,884,083** per year).

