

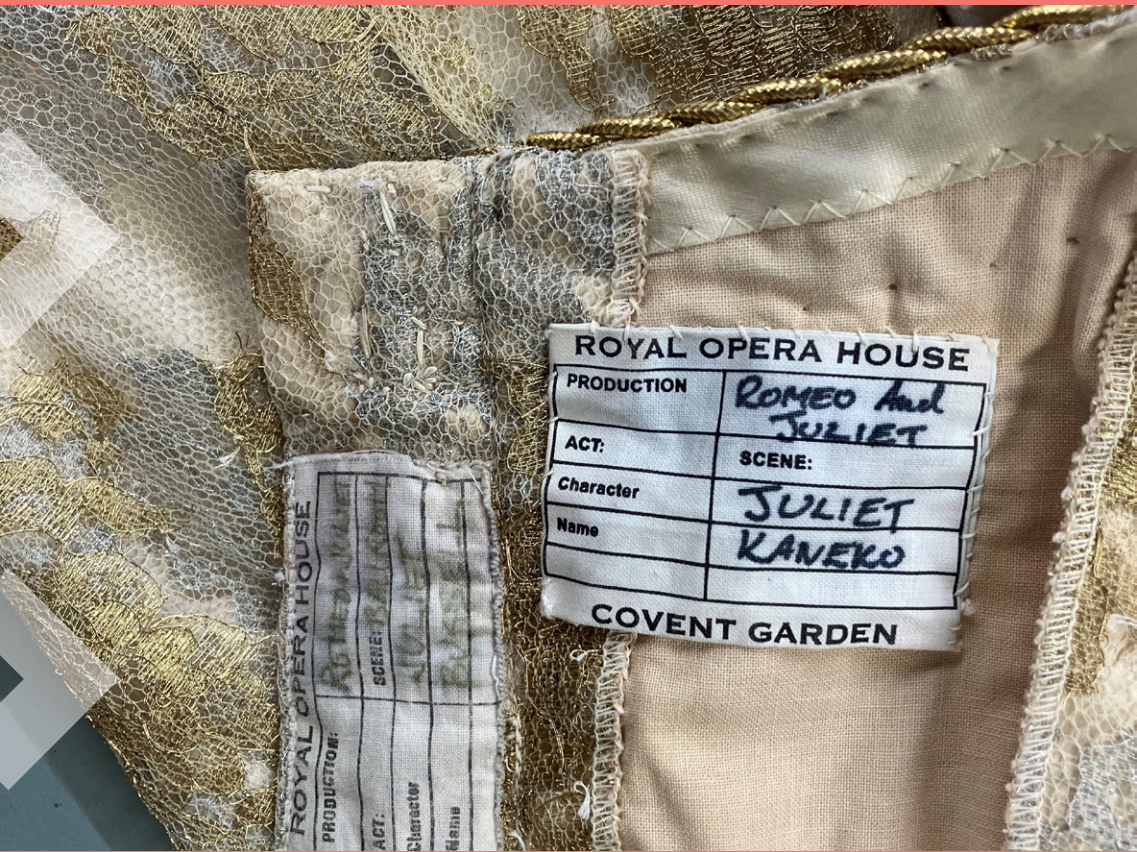
# Stitched for the Stage

Sandra Dartnell, Create & Design Programme Manager at The Royal Ballet & Opera

We are going behind the scenes in the workrooms of The Royal Ballet & Opera. The Royal Ballet and Opera, makes world-class ballet and opera for everyone. Everything seen on the stage is designed, sourced and crafted by the organisation's Technical, Production and Costume department including apprentices, as well as by freelance specialists they collaborate with.



Costume Department at the Royal Opera House ©2016 ROH. Photographed by Sim Canetty-Clarke



Costume Department at the Royal Opera House Juliet Ballroom Dress - Labels 2025

We create for hundreds of performances a year, often making costumes for three or four shows at the same time. Our productions have large casts, meaning constant activity. In the costume department we source materials and existing pieces, review designs and construct the incredible outfits you see on stage. Our costumes are designed by freelance costume designers who receive a brief and specification, respond with a concept and then hand over to our technicians and makers to realise. Over one hundred people work in our costume team which includes our stockroom, ladies workroom, men's workroom, revival workroom, dye workshop, hats and jewellery, footwear and wigs and make-up, as well as at our costume logistics teams and costume store in Aberdare, Wales.

The Royal Ballet and Opera are part of a wider national and international theatre sector. In the UK we have been collaborating to define better ways of working for a sustainable theatre and have committed to following the principles of the Theatre Green Book.

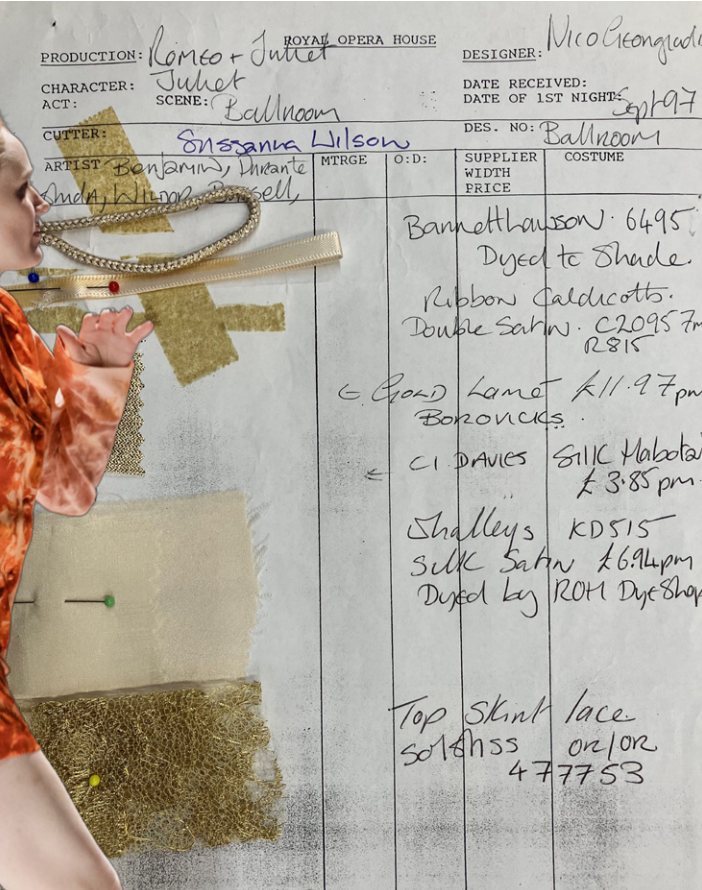
The Theatre Green Book was created to provide a step-by-step guide for theatres and performing arts venues to become more sustainable. It covers all aspects of theatre including our buildings, operations and productions. We use it to help our staff understand that everyone has an important role to play in making The Royal Ballet and Opera more sustainable; many of us taking steps together will result in big changes.

## Employing Curiosity

At The Royal Ballet and Opera, we face many challenges to produce sustainable costumes, but the will to be front runners is very strong throughout the team. We begin by employing curious people and creating the space to question things. Everyone on the team is tasked to think about sustainability and consider where things come from, how much is really required and where something goes afterwards. Our repertory model, where productions are stored and then 'revived' or brought back to stage later, is inherently sustainable, but brings its own problems of longevity and durability. Ensuring that we make costumes that capture the designer's vision, have minimal impact on the environment and will last for performance after performance can be a difficult balance.



Production image of Damiano Michieletto's Carmen ©2024 Camilla Greenwell



Costume Department at the Royal Opera House Juliet Ballroom Dress - Costume Bible Page 2025

Avery Amereau as Olga in Ted Huffman's production of Eugene Onegin ©2024 Tristram Kenton

## Sustainable Decisions

Through experience we have found that it is better to consider sustainability from the very beginning of the design process rather than trying to reverse engineer an existing design. Our Costume Centre in Thurrock has recently been remodelled to allow costume designers to browse our existing stock for reuse. We are increasing the amount of sharing between productions; the men's chorus in Eugene Onegin and Traviata shared tailcoats this season.

If we are creating a new production with modern costumes, we try to shop consciously; being more aware of supply chains, low paid labour and synthetic fibres with micro plastics. Our new productions Carmen, Festen and Onegin are great examples of vintage and market shopping.

If a costume is made new, we consider the fabrics we use. There is a difficult balance between sustainable fabrics, cost and performance and decisions must be made on a case-by-case basis by technicians and buyers trained to understand fabric properties. Ensuring that our costumes will last is vital in our sustainability efforts; our production of the opera Turandot was created in 1982.

Part of that durability is ensuring that the costumes can be re-worn by different artists: our technical pattern cutters and skilled workroom technicians create all costumes with a seam allowance that means they can be reassembled to fit a range of different performers, reducing the number of remakes required for revivals. Dress shields and underarm pads are used to ensure ballet costumes endure, with some worn 170 times in their lifetime.

The Royal Ballet and Opera also considers what happens to our costumes at the end of their life. Useful items will remain in stock; however, many others are given a new lease of life through our costume sales or are sold to the public through our charity partnerships with Charity Super.mkt, Cancer Research UK and Suited and Booted.

## Prototyping Sustainable Alternatives

Our drive to create more sustainable costumes also means working with industry to ensure more sustainable alternatives are available on the market. We test products to determine whether they will meet our rigorous standards and if not, look to find ways that they could be adapted to meet our needs. Collaboration with other theatres is an important part of this, to share our findings and learn from each other.

Use of sustainable products often involves more traditional techniques and substances, and we are keen to ensure traditional skills are maintained. We have already started to use safer, less chemical based products in our dye department, and this year aim to build a small dye garden on our top-terrace. We will be growing a variety of plants to create natural dyes, whilst supporting biodiversity and enhancing staff wellbeing.

## Collaboration

The Costume teams' important work extends across the organisation, including to many teams within our Learning and Participation department including Collections, Exhibitions, our Schools Programme KS1- KS4 and our KS5 Design Challenge. The Costume team make sure that creativity is available to as many young people as possible, using the passion and expertise we have for ballet and opera to fight for the availability of arts education, including the Design & Technology curriculum and sustainability within it.

KS5 Design Challenge is a great way to develop skills and build a portfolio. Shortlisted work is seen by some of the world's most celebrated creators, artists, and technicians and receives professional feedback. We even get to meet the winners at the Royal Opera House. We collaborate on the creation of the brief and ask students to outline how a designer might show consideration of the environmental impact of their choices.

## Get Involved

The Royal Ballet and Opera Design Challenge is a national, skills-based design competition that gives students the chance to work to a brief inspired by a Royal Ballet and Opera production.

Each year the KS5 Design Challenge provides teachers with a new free resource to run a live brief in their classroom including lesson plans and teacher CPD. Competition pathways are Costume Design, Wigs, Hair and Make-up Design, Set Design and Marketing Design. Design Challenge has now nurtured young talent and enabled access to our artforms for 15 years.

## Links



**Interested teacher?**  
Find out more the KS5 teaching resource and enrol your school. [tinyurl.com/mr399wst](https://tinyurl.com/mr399wst)



**Over 18 student?**  
Find out about work experience. Placements are only available to people who are 18 and over, due to health and safety and supervision requirements. [tinyurl.com/56tr8z72](https://tinyurl.com/56tr8z72)



**Attend a performance.**  
Find out about our Schools' Matinees for Secondary / FE Being in the audience at a live performance develops empathy skills for designing for a live performance. [tinyurl.com/57hw3xkz](https://tinyurl.com/57hw3xkz)