

THEATRE GREEN BOOK EVALUATION



THE CHILDREN

NOTTINGHAM
PLAYHOUSE

Written by
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About Us

Nottingham Playhouse is dedicated to making bold and thrilling theatre in the heart of Nottingham and was named UK's Most Welcoming Theatre in the UK Theatre Awards 2023.

Nottingham Playhouse has been one of the country's leading producing theatres since its establishment in 1948. In 1963, the company moved to its current building, designed by Peter Moro and regarded as one of the finest British theatre buildings of its era. Nottingham Playhouse has two auditoria: the theatre, with around 750 seats, and Neville Studio, with a capacity of around 110 seats. Opened in 2022, Company is the venue's third, flexible space, accommodating small scale performances, workshops and events. Nottingham Playhouse also creates site specific work, small and medium-scale tours, and outdoor work.

Nottingham Playhouse creates a range of 8-10 productions throughout the year, from timeless classics to innovative family shows and adventurous new commissions. The venue also hosts other work including drama, physical theatre, dance and stand-up comedy.

With its own, full production facility, Nottingham Playhouse builds all its sets at its nearby theatre workshops. It employs a team of scenic artists, a costume department, a props department alongside lighting and sound, stage management and technical teams, supported by freelancers. The Playhouse also has an on-site costume and props stores and an off-site furniture/set store.

A registered charity (no. 1109342), Nottingham Playhouse believes that theatre is for everyone. Its wide-ranging participation work takes place in every corner of the building and throughout Nottingham. Each year it creates over 58,000 engagements with people of all ages, abilities and interests, including many cost-free classes, and targeted work with those at risk of being isolated or marginalised. Its artist development programme, Amplify, supports and develops local theatre-makers. Now in its sixth year and boasting over 750 members, it offers a year-round programme of professional development opportunities to a network of artists, alongside employment opportunities.

For more information visit www.nottinghamplayhouse.co.uk

WORKING WITH THE GREEN BOOK

Where are we now?

Having worked on two shows in the studio space to the Green Book targets, (**Goldilocks and the three Bears and Hansel and Gretel**), the decision had been made to scale things up and work towards a Green Book show in the larger auditorium.

Since Goldilocks in 2022, we have been working on improving our methods of data collection to make our data more meaningful. We now also have a Sustainability Officer whose work in this area in developing our Carbon Impact Tracker (CIT) has been invaluable. The CIT not only shows us the Green Book analysis for the source and end of life for materials but also the associated CO2e emissions. This means we can calculate a carbon footprint for the materials.

As a Production Manager having worked on two designated Green Book shows previously, I was feeling confident in moving forwards. My understanding of materials is now better, and with the support of the Sustainability Officer the recording of data has been formalised.

I have been including a Green Book update on each of my Production meetings, which reminds the team of what we are trying to achieve.



1. Stopping the floor creaking



2. Stopping water leaks



3. Fitting up



4. Kitchen in place

THE PRODUCTION

Creative Team

Playwright	Lucy Kirkwood
Director	Kirsty Patrick Ward
Set and Costume Designer	Amy Jane Cook
Lighting Designer	Jamie Platt
Sound Designer	Dominic Brennan
Movement & Intimacy Director	Struan Leslie
Costume Supervisor	Emilie Carter
Wig Supervisor	Helen Keane for Campbell Black Associates
Stage Manager	Patricia Davenport
Deputy Stage Manager	Louise Pearson
Assistant Stage Manager	Chloe Chancheong
Production Manager	Jill Robertshaw
Producer	Amanda Bruce
Casting Director	Ginny Schiller CDG
Voice & Dialect coach	Marianne Samuels
Production Photography	Manuel Harlan

Cast

Sally Dexter
Caroline Harker
Clive Mantle

All members of the Creative team had a sustainability clause in their contracts from initial appointment. It highlighted expectations to work towards the Green Book goals, and what levels was being targeted.

SUMMARY OF THE PROCESS

Target

We were working towards the **Baseline** target across all areas, this being Set, Costume, Lighting, Sound, and Props.

This target is **50%** of all materials used at source are either reused or from recycled sources, and **65%** of materials have a further life after the show by being either reused or recycled.

We also looked at the materials scenic art used, and the running props (consumables) that were used in the show.

The analysis was completed by Jill Robertshaw, Production Manager of **The Children** and Deputy Production Manager at Nottingham Playhouse.



5. The set is all in place.

The Process

The Theatre Green Book was used as guidance for this production.

- The Theatre Green Book was introduced at the start of the process for the creative team. These key members of the creative team had to be committed to the process, and it was included in the creative team's contracts.
- The Theatre Green Book process was discussed at the parameters meeting with the Director, the Set and Costume Designer, the Production Manager, Producer and Nottingham Playhouse's Artistic Director.
- Additional time was made available to allow time for sourcing items.

1. Parameters meeting	28th April 2023
2. Concept meeting	16th June 2023
3. Green card meeting	25th July 2023
4. Design meeting	29th August 2023
5. Build	November 2023
6. Rehearsals	Mon 19th February 2024
7. Fit up	Mon 18th March 2024
8. Preview 1	Saturday 23rd March 2024
9. Press Night	Wednesday 27th March 2024
10. Final performance	Saturday 6th April 2024

- The Designer assessed the items which we already had in our stores which could be incorporated into their design. This was prior to the Concept meeting.
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The staff who were involved in making the show were invited to the **Concept** meeting.

- A **Green Card** meeting was held, followed by a final design meeting.



- Actual items were sourced prior to the **Design** meeting to avoid the designer wasting materials on making and remaking the model.



- A **Carbon Impact Tracker** was used to calculate the Green Book data and calculate the carbon emissions. This involved weighing everything. The recording of data was undertaken by the show's Production Manager and the various Heads of Department.

Green Book target results

	Source	End of Life
Set	Did not achieve Baseline	Intermediate
Costume	Intermediate	Intermediate
Props	Intermediate	Intermediate
Lighting	Intermediate	Advanced
Sound	Intermediate	Advanced

Future Actions

- Achieve Baseline in sourcing the set.
- Develop sharing relationships with other theatres.
- Continue to invest in training for staff and freelancers, specifically Carbon Literacy.

Sets and Scenery



8.Scenic items (L to R) the back door flat, under the cliff and the bell

	Target	% of Reuse/Recycling By weight	Target Met?
% having had a previous life	50%	46.25%	No
% having a life afterwards	50%	80%	Yes

What was achieved?

Looking at the set design, the plan was to source any 'real' items. At the Concept meeting these were identified as the doors, the windows, and the kitchen. This was achieved prior to the Design meeting.


The Kitchen was found on eBay by the Designer. A search radius was set so that we were minimising emissions associated with transportation. The owner was renovating their house and was happy to hold the kitchen until it was needed in Jan 2024. Two Playhouse staff removed the kitchen and brought it back to the Playhouse.



9. The kitchen in it's domestic setting, before collection

The floor would be stock steel deck covered in lino or dance floor. Some second-hand dance floor was purchased, and there was enough left over for the studio Christmas show in 2024.

The sky - could this be achieved by lighting a Back Projection? Or alternatively a painted cloth?



A painted cloth, created by Nottingham Playhouse in 2023 for The Beekeeper of Aleppo, which subsequently went on tour, was borrowed back from the producer for this production.

The plan was to source astroturf. This was partly successful. Some free astroturf was sourced in August 2023 but with nowhere to store it the next plan was to collect in January 2024. Unfortunately, the company appears to have stopped trading in that time. New product was purchased, that had 80% recycled content. This was a bit more expensive than the non-recycled product, but felt it hit the Green Book brief better.

The black surge on the arch was reclaimed and saved afterwards for future use.

The cliff face was made from a material called Alushape. This had been left over from a previous production.

This meant all we were building were the walls, the ceiling beams, the base of the cliff and the archway. This had to be made of steel due to the curve.

The timber, metal and fabric which formed part of the set were all purchased from manufacturers which have sustainability processes.

The timber was from James Lathams, who have extensive environmental and ethical policies.

The metal was from Eggleston Steel, who also have an environmental policy.

The commercial arm of the workshop buys in bulk, so the transportation of the small number of materials required was kept to a minimum. The timber and metal were from East Midlands suppliers.

The scenic workshop is one mile from the Nottingham Playhouse.

What was a challenge?

The cliff face could have been made in three ways (and maybe more?):

1. Polystyrene carve. This is labour intensive as the cliff is 9.75 wide and 1.2m high. Polystyrene is also not a sustainable material as it is made from oil.
2. A timber frame and a chicken wire cover/canvas over the top. Again, labour intensive and wouldn't have looked as good.
3. Alushape. This, as the name suggests is made from aluminium. Metal as a whole is not a sustainable material due to the high carbon emissions involved in its manufacture. However, in this case, we already had the material so did not need to purchase any. The material itself is very fast to work with meaning the cliff was created quickly. The material has been saved for future use.

Would we have chosen method 3 if we hadn't got the material? Possibly as it meant we saved on time and labour, and the other two methods involved high carbon materials too- polystyrene and canvas fabric.

The main challenge was that we didn't quite meet the Baseline target of 50%. This was because we weighed all the set pieces, and they were heavy. Certainly heavier than the sourced items, even when we included the steel deck floor.

When a quantity analysis was carried out, the result was in the region of 80% for the source of materials. However, using the data by weight gives a more accurate result.

How could we have done better?

In order to achieve Baseline, we could have found some flats to reuse.

We need to start creating hubs of items which could be used again, and then offered up to designers.

At the time of writing this, despite offering the flats to anyone who would come and take them away, the flats are still in situ at the theatre. This will affect the End-of-Life statistics in the future.



10. The lighting session

Costume



	Target	% of Reuse/Recycling By weight	Target Met?
% having had a previous life	50%	89.9%	Yes
% having a life afterwards	50%	97.66%	Yes

What was achieved?

This production lends itself to using second hand clothing. Vinted was utilised, as was the many charity shops in Nottingham.

The acting company also loaned some of their own items.

We have an on-site costume store which was utilised.

There appeared to be no Amazon, or panic bought last minute purchases.

What was a challenge?

The costuming process for this production was very smooth.

There weren't any major challenges, and the data speaks for itself.

Props and Furniture



	Target	% of Reuse/Recycling By weight	Target Met?
% having had a previous life	50%	98.72%	Yes
% having a life afterwards	50%	99.59%	Yes

What was achieved?

In terms of how Nottingham Playhouse has traditionally worked in this area, the starting point has always been to see what is in the store. In the props workshop there is a stock of materials left over from previous productions.

Like with costume, this production very much leant itself to using second hand items.

The tricycle was borrowed from another theatre.

The build for this show was very organised, so there were very few last-minute purchases.

The props store is on site.

What was a challenge?

The process went smoothly, greatly helped by the fact the props staff were very much behind the challenge.

Lighting

	Target	% of Reuse/Recycling By Weight	Target Met?
% having had a previous life	50%	96.66%	Yes
% having a life afterwards	50%	100%	Yes

We used all in-house kit for this show. There was no haze or other consumables.

After use, the items are returned to the Playhouse's stock.

Sound

	Target	% of Reuse/Recycling By Weight	Target Met?
% having had a previous life	50%	99%	Yes
% having a life afterwards	50%	100%	Yes

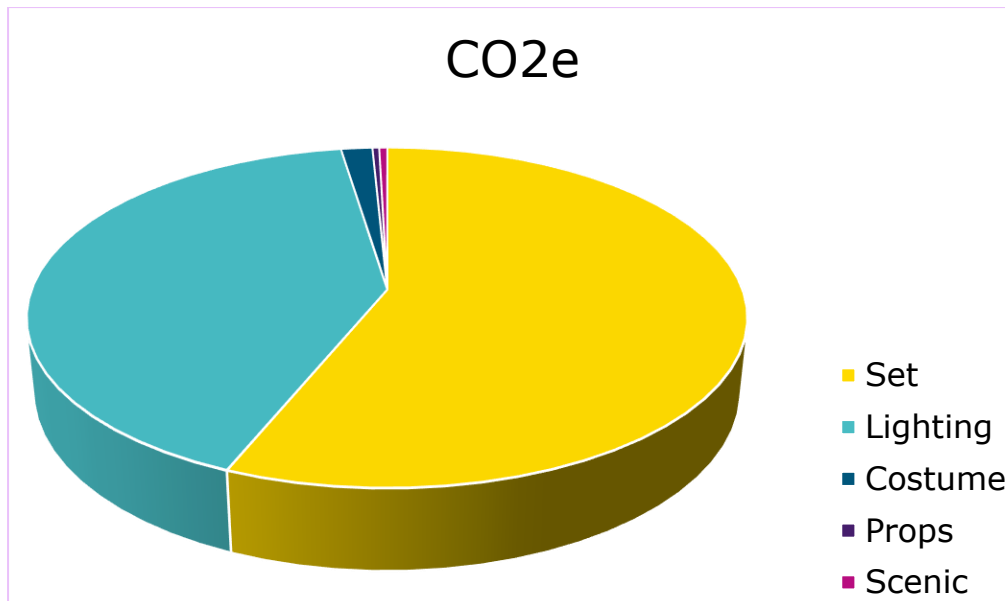
What was achieved?

We used all inhouse kit for this show. We did have to purchase a couple of small items which now form part of our stock.

After use, the items are returned to the Playhouse's stock.



Carbon Emissions of creating 'The Children'.



Set 919.3kg

Lighting 675.97kg

Costume 26.9kg

Scenic 6.96kg

Props 5.8kg

Sound 0.3479kg

Looking at our Green Book results, it's not surprising that the largest source of emissions is the set.

Maybe more surprising was the lighting result. This was because the items we purchased – scaffolding to create the beams and top hats for the lights - were made of metal, a high carbon emission material.



11. Putting the roof in place

Consumable items- scenic and running props

We used up old paint.

The material for the cliff front is surplus from a previous production (discussed above)

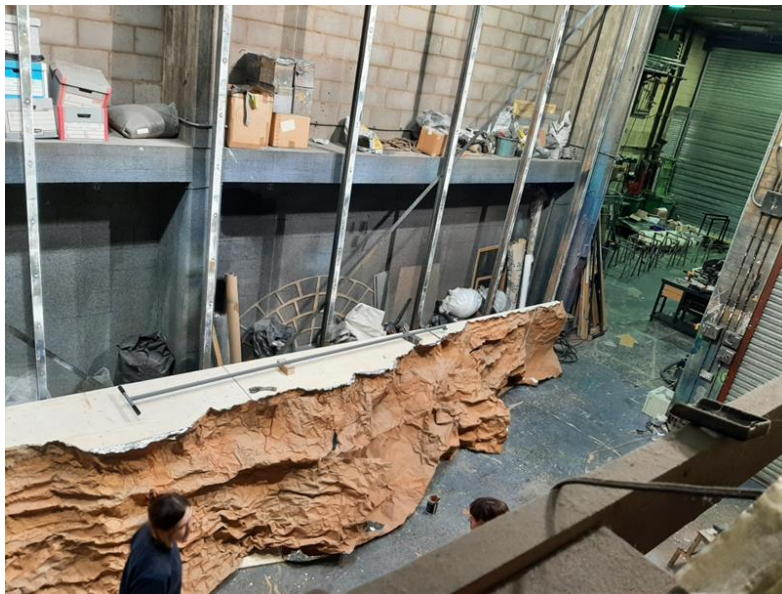
Used Dekozell for moulding, which is made out of sustainable wood fibre. This is a product which has been available for some time.

Other items on the cliff - vermiculite, grass roots, felt - were from stock items. The grass roots were made out of the bags which our panto cloths came in.

Sawdust was used from the floor!

The groundrow covered in old canvas from a previous show, hessian and foliage, all from stock.

The main take away from looking at source of items is the impetus to change.



12. The cliff face in progress

Running Props

There was a lot of food used in the show. Each item was carefully considered in terms of where would source it. The decision was taken to not use dairy due to its high carbon footprint, so we did some research and discovered that pea milk was the most sustainable.

Jackfruit was used instead of tuna.

All the food was saved afterwards to be eaten, the bread went in the freezer and toast was shared out.

FINAL THOUGHTS

Conclusion

1. The analysis shows that the choice of materials is crucial in terms of environmental impact.
2. Reusing larger items will have a larger impact on carbon reductions.
3. More time built into the process means everyone can work in a more sustainable way.
4. Sourcing items earlier saved time overall.
5. We saved money, because second hand items are cheaper.
6. We were able to provide actual items for rehearsals, saving money on a rehearsal set and improving morale with the director and acting company.
7. Although this can only be anecdotal, staff did seem more motivated by working in a sustainable way and this led to an increase in staff morale.



13. The Paint shop staff working on the set

Photo credits. Photos 1 & 2 Laura Wolczyk, Photos 3-12 Jill Robertshaw, Photo 13 Emily Hackett

Other photos are by Manuel Harlan.