

Hull Truck Theatre

Janthi Mills-Ward, Executive Director, Hull Truck Theatre

Oli Brown, Head of Production and Technical , Hull Truck Theatre

Theatres Trust
Conference 21:
Making Theatre
Sustainable



#MakingTheatreSustainable



50
YEARS
1972-2022

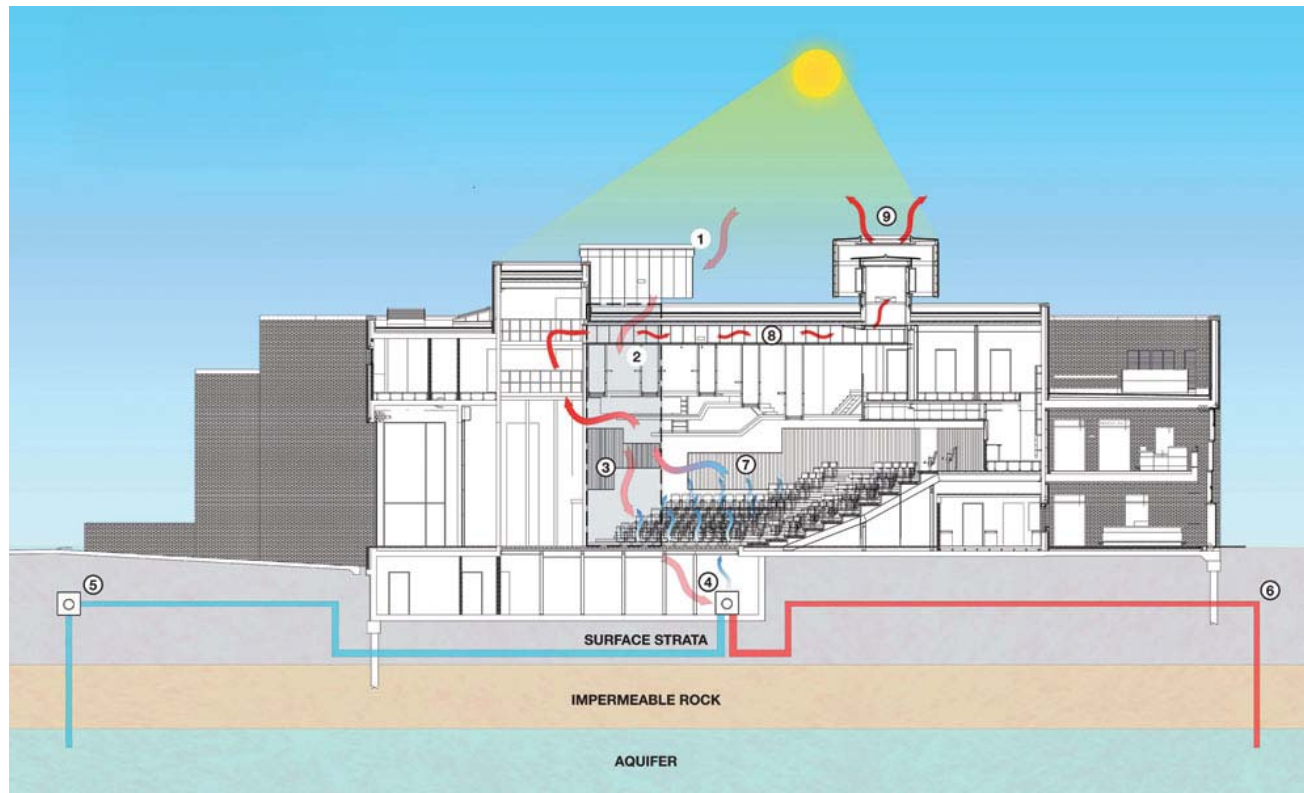


Key Sustainability Features

- Built in 2009 with the aim of having an innovative sustainability strategy using borehole technology and passive ventilation
- Max Fordham LLP, the services engineers for the project; believed it to be the greenest theatre built to date in the UK.
- Building Management System –environmentally friendly ventilation system using fresh air rather than air conditioning, using two banks of roof windows that draw air in down channels, which is then either cooled or heated according to the season, and drawn back out of the auditorium.
- Bore Hole – 60m deep aquifer, when the computer identifies the building needs cooling it pumps the water up and around the theatre.



Air Flow Plan





Additional Building Considerations

- Thermal Mass of concrete walls retain heat.
- Choosing water based paint not Oil.
- Entrance lobby to keep heat locked in.
- Pumps are not used to feed water down its fed directly from the roof utilising gravity.
- Reduced energy costs on limited budgets increasing resilience.

Sustainability Journey

- Development of LED lighting was in its infancy so was not originally installed in the building – we have instigated a phased programme of switching to lower carbon LED lights over the last 5 years currently replacing 70% of the theatre lights.
- Installation of Solar Panels when the feeding tariff was at its peak, generating approximately 10,000kWh per year
- Upgrading and Maintaining the buildings systems especially when parts reach similar lifespans. I.e. replacement of window actuators to maintain ventilation system (funded by Theatres Trust)
- Post Pandemic key ventilation system has instilled confidence in the theatre and its systems



Challenges

- The buildings design and materials created a stark environment that doesn't appear welcoming or relaxing.
- Bare florescent white lights can cause issues for those with light sensitivity
- Complexity of the system can mean when key personnel are not available it is difficult to make changes.
- The system can open windows in bad weather if it wants to cool the space it can be difficult to override
- Expectation from ACE to make significant building improvements on a building that is starting from a different point.



Next Steps

- Key into Hull becoming a test bed for a green energy future. The Waterline Summit.
- Working with other key industries in the city for a vision for Hull. As well as ambitious plans for carbon neutrality our aim is for the city to be at the forefront of innovative, low carbon, climate resilient development. Making Hull one of the most sustainable and greenest cities to live, learn, play and work.
- Working alongside companies locally to draw expertise on reducing and carbon capture, and to support those organisations as a cultural lead within Hull.
- Build buy in and upskill across the organisation



The Green Book

- The Green Book will be the key tool in our journey towards Net Zero.
- The principles of 'Lean, Clean and Green' being the foundations of sustainability plans.
- Cross departmental and level sustainability group using the green book to support the development of the buildings green plan.
- Considering key business partners, including energy firms to engage with the key aims of the Green Book.
- Planning for capital projects to have sustainability as a key aim and using the Green Book as the guidelines for developments.

