

Latitude Festival



Shining a light in the Theatre Arena

The Arcola challenge

By Andrew Woodger

Many major bands are having qualms about the carbon footprint they leave behind after touring, but at the Latitude Festival, one smaller operation is trying to do its bit. The Arcola Theatre was pioneering a green-powered tent using hydrogen.

Around 20 theatre companies performed at the Theatre Arena at Latitude in 2008 - some of them gave impromptu shows in the woods as well. The fact that both the Royal Court Theatre and the Royal Shakespeare Company were back again shows how important theatre is to the Latitude experience.

The Arcola Theatre is based in a converted warehouse on Arcola Street in east London. They're committed to becoming the world's first carbon neutral theatre, and they brought that commitment to Suffolk for the festival.

Listen to an interview with one of the Theatre Arena performers: [Ken Campbell's School Of Night](#)

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The Theatre Arena tent is round and quite small with a capacity for around 200 people sitting on benches which surround a central circular stage.

Only the lighting was powered by Arcola Energy. The sound was provided by another company, so that side of things wasn't 'green'. The energy needs of the sound and lighting are roughly equivalent.

Arcola's resident boffin and Executive Director is Ben Todd: "The big thing for me - my background's in engineering - is that you can use the arts to drive very rapid change in people's behaviour.

"When I was doing my PhD [at Cambridge] I was working on energy from sewage. I wouldn't be doing interviews about that!

"Whereas if you work in theatre everyone wants to hear about it. They come to the theatre to be inspired, to be challenged, to see something new."

How?

The power operation starts with hydrogen cylinders feeding the fuel cells. Combined with oxygen this produces water - described by Ben as reverse-electrolysis. This then produces the electricity.



Ben Todd with the hydrogen cylinders

Ben said it's also about cutting down the need for energy in the first place: "The lights we use had an initial specification of 17 kilowatts which we brought down to under 5 kilowatts. The most important green thing you can do is actually use less.

"The benefit of the fuel cell is that it motivates us to use less."

"In 43 hours of performance we saved about 400kg of carbon by reducing the lighting load from 17kW to under 5kW"

Turning it up to 11

This is all very well for a small theatre tent, but can the major rock bands power what are often huge productions involving enough electricity to power a small country?

Ben Todd said it's possible in the future: "At the moment the cost would be fairly substantial. You could do it if you threw enough money at it, but it's probably not going to happen for a couple of years while the technology improves.

"Although you don't bring the fuel cell along, Radiohead just did a big tour using entirely LED lighting and I think they cut their power consumption by something like 50%.



"The key thing with this sustainability is if you use less, it's always good. If you bring in other technology alongside this, it helps. But fundamentally just use less."

Bringing it all back home

The actual Arcola Theatre (the building) was converted in 2000 and its niche is as a fringe venue for the capital which is involved in local community projects as well as bigger professional productions.

To make the building completely carbon-neutral they estimate they'll need to invest £250-350,000 to avoid the 54 tonnes of carbon emissions that would be generated each year by 'normal' energy sources.

This means a program of double-glazing, draught-proofing, controlled ventilation, fitting lights with motion sensors, energy efficient stage lights, a wood boiler, solar cells on the roof and more.

Visit Arcola's website for more details of what's on and for more details about their energy-saving project.

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http://www.bbc.co.uk/suffolk/content/articles/2008/07/22/latitude_arcola_green_feature.shtml